

JVC AV-2155WE/KSK SERVICE MANUAL



JVC

SERVICE MANUAL

FLAT COLOUR TELEVISION

AV-2155WE/KSK

BASIC CHASSIS

CW2

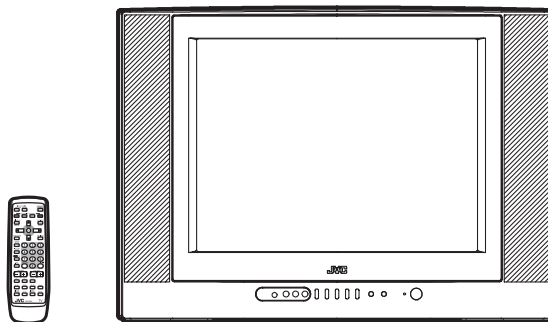


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SPECIFICATION

Items		Contents
		AV-2155WE/KSK
Dimensions (W × H × D)		64.9cm × 46.55cm × 47.15cm
Mass		23kg
TV RF System		B, G, I, D, K, M
Colour System	TV Mode Video Mode	PAL / SECAM / NTSC3.58 / NTSC4.43 PAL / SECAM / NTSC3.58 / NTSC4.43
Stereo System		A2 (B/G) / NICAM (B/G, I, D/K)
Teletext system		FLOF (Fastext) WST (World Standard Text)
Receiving Frequency	VHF Low VHF High UHF CATV	46.25MHz ~ 140.25MHz (AS0 ~ S6) 147.25MHz ~ 423.25MHz (S7 ~ S36) 431.25MHz ~ 863.25MHz (S37 ~ C57) Mid : X ~ Z, S1 ~ S10 Super: S11 ~ S20 Hyper: S21 ~ S41
Intermediate Frequency	VIF	38.0MHz
	SIF	D/K: 31.5MHz (6.5MHz) [NICAM: 32.15MHz (5.85MHz)] I: 32.0MHz (6.0MHz) [NICAM: 31.45MHz (6.55MHz)] B/G: 32.5MHz (5.5MHz) [A2: 32.26MHz (5.74MHz)] [NICAM: 32.15MHz (5.85MHz)] M: 33.5MHz (4.5MHz)
Colour Sub Carrier Frequency		4.43MHz (PAL), 4.40MHz/4.25MHz (SECAM), 3.58MHz/4.43MHz (NTSC)
Aerial Input Terminal		75Ω unbalanced, coaxial
Power Input		AC110V ~ AC240V, 50Hz / 60Hz
Power Consumption		112W (Max.) / 80W (Avg.)
Picture Tube		21-inch, aspect ratio 4:3, flat square face type, tinted
Screen Size		Visible size : 51.0cm (Diagonal) / 41.6cm × 31.5cm (H × V)
High Voltage		29kV±1.5kV (at zero beam current)
Speaker		6.5cm × 13cm, Oval type × 2
Audio Output		7W + 7W
Video / Audio Input (1/2/3)	S-Video [1]	Mini-DIN 4 pin × 1 Y: 1V(p-p), positive (negative sync provided), 75Ω C: 0.286V(p-p) (Burst signal), 75Ω
	Video [1/2/3]	1V(p-p), negative sync, 75Ω, RCA pin jack × 3
	Audio [1/2/3]	500mV(rms) (-4dBs), high impedance, RCA pin jack × 6
	Component Video [2]	RCA pin jack × 3 Y:1V(p-p), positive (negative sync), 75Ω Cb/Cr:0.7V(p-p), 75Ω
Video / Audio Output	Video	1V(p-p), 75Ω, RCA pin jack × 1
	Audio	500mV(rms)(-4dBs), Low impedance (400Hz when modulated 100%), RCA pin jack × 2
Headphone		3.5mm stereo mini jack × 1
Remote Control Unit		RM-C1286-1H (AA/R06/UM-3 battery × 2)

Design & specifications are subject to change without notice.

SECTION 1

PRECAUTION

1.1 SAFETY PRECAUTIONS

- (1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- (4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ($\perp$) side GND, the ISOLATED (NEUTRAL) : ($\equiv$) side GND and EARTH : ($\oplus$) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.
- (5) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).
- (6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- (7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10k Ω 2W resistor to the anode button.

- (8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) Isolation Check (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) Dielectric Strength Test

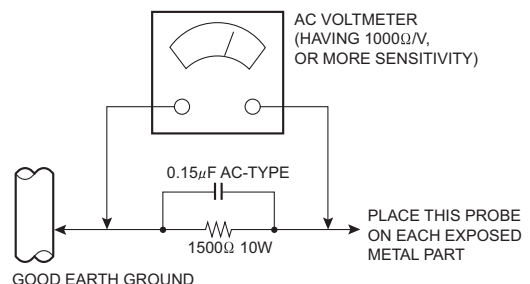
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

b) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 Ω per volt or more sensitivity in the following manner. Connect a 1500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



SECTION 2

SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

- New chassis design enables use of an interactive on-screen control.
- Pure flat CRT produces fine textured picture in every detail.
- Wide range voltage (110V ~ 240V) for AC power input.
- With AUDIO/VIDEO/S-VIDEO/COMPONENT input terminals.
- I²C bus control utilizes single chip ICs.
- By means of AUTO PROGRAM, the TV stations can be selected automatically and the TV channels can also be rearranged automatically.
- Built-in DIGITAL ECO MODE (ECONOMY, ECOLOGY).
In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Built-in OFF TIMER & RETURN +.

2.2 MAIN CPU [MAIN PWB : IC701] PIN FUNCTION

Pin No.	Pin name	I/O	Function
1	VssP2	-	GND
2	VssC4	-	GND
3	V1.8C4	I	1.8V (Digital)
4	V3.3A3	I	3.3V
5	VrefP_Sdac	I	3.3V (Positive)
6	VrefN_Sdac	-	GND
7	VrefP_Sdac	I	3.3V (Negative)
8	VrefN_Sdac	-	GND
9	VrefP_Sdac	I	3.3V (Positive)
10	Xtalln	I	24.576MHz for system clock
11	XtalOut	O	24.576MHz for system clock
12	VssA1	-	GND
13	NECK	I	V-guard input/ I/O switch
14	CONT	I	1.8V regulator control
15	V5P1	I	+5V
16	Ph2	-	Phase-2 filter
17	Ph1	-	Phase-1 filter
18	Gnd1	-	GND
19	SecPll	-	SECAM PLL decoupling
20	Dec8G	-	Bandgap decoupling
21	EW	O	East-West drive output
22	VDRB-	O	Vertical drive B output
23	VDRA+	O	Vertical drive A output
24	Vif1	I	Video IF input 1
25	Vif2	I	Video IF input 2
26	Vsc	-	Vertical sawtooth capacitor
27	Iref	I	Reference current input
28	GndIF	-	GND
29	Sif1	I	Sound IF input 1
30	Sif2	I	Sound IF input 2
31	AGC	O	Tuner AGC output
32	EHT	I	EHT/overvoltage protection input
33	Ssif/RefIn/Avl/RefOut	O	Automatic Volume Levelling/ sound IF input / subcarrier reference output / external reference signal input for I signalmixer for DVB operation
34	L3	I	Audio-L3 input (left signal)
35	R3	I	Audio-R3 input (right signal)
36	L-OUT	O	Audio L output
37	R-OUT	O	Audio R output
38	DecsDem	-	Decoupling sound demodulator
39	QssO/AmO/AudeEm	O	QSS intercarrier output / AM output / deemphasis / (front-end audio out)
40	Gnd2	-	GND
41	Plilf	-	IF-PLL loop filter
42	SifAgc	-	AGC sound IF
43	IfVo/FmRo/DvbO	O	Not used
44	NC	O	Not used
45	V8AudioSwitches	I	8V
46	AgcSsif	-	AGC capacitor second sound IF
47	V5P2	I	5V
48	V-OUT	O	Video output
49	L1	I	Audio-L1 input
50	R1	I	Audio-R1 input
51	V3	I	Video V3 input
52	C4	I	Not used
53	Audio2InL	I	Not used
54	Audio2InR	I	Not used
55	V2/Y	I	Video V2 input
56	L2	I	Audio L2 input (Left signal)
57	R2	I	Audio R2 input (right signal)
58	Y3/Cvbs	I	S-Video Y1 input
59	C1	I	S-Video C1 input
60	AudioLsL	O	Audio L output for audio power amplifier
61	AudioLsR	O	Audio R output for audio power amplifier
62	HP-L	O	Not used

Pin No.	Pin name	I/O	Function
63	HP-R	O	Not used
64	CVBSO/PIP	O	CVBS / PIP output
65	SVM	O	Not used
66	FbiSo	I	Flyback input/sandcastle output
67	Hout	O	Horizontal output
68	VssComb	-	GND
69	V5Comb	I	5V
70	Vin/R2/Pr	I	PIP R input
71	Uin/B2/Pb	I	PIP B input
72	Yin/G2/Y	I	PIP G input
73	Ysync	I	Not used
74	Yout	O	Not used
75	Uout/INSSW2	I	YUV insertion input
76	NC	O	Not used
77	INSSW3	I	YUV insertion input
78	R3/Pr	I	Component PR input (Video-2)
79	G3/Y	I	Component Y input (Video-2)
80	B3/Pb	I	Component PB input (Video-2)
81	Gnd3	-	GND
82	V5P3	I	5V
83	BCL	I	Beam current limiter input
84	BLKIN	I	Black current input
85	Rout	O	R output
86	Gout	O	G output
87	Bout	O	B output
88	V3.3A1	I	3.3V
89	RefAdN	-	GND
90	V3.3RefAdP	I	3.3V (Positive)
91	RefAd	I	3.3/2V
92	GndA	-	GND
93	V1.8A	I	1.8V
94	V3.3A2	I	3.3V
95	VssADC	-	GND
96	V1.8ADC	I	1.8V
97	REMOTE	I	Remote control
98	PW_LED	I	POWER LED control
99	PW_LED	I	POWER LED control
100	V1.8C2	I	1.8V
101	VssC2	-	GND
102	TIMER	-	Not used
103	TIMER	-	Not used
104	VER_PROTECT	O	X-ray protect
105	S_REDUCE	O	Sound control
106	P00/I2SDI1	O	Not used
107	POWER	O	SUB POWER control
108	SCL1	I	I2C bus clock
109	SDA1	I/O	I2C bus data
110	V3.3P	I	3.3V
111	ROTATION	O	Rotation
112	3.58/OTHER	O	NTSC 3.58 detection
113	A_MUTE	O	Audio muting
114	4.5/OTHER	O	NTSC 4.43 detection
115	PROT	I	Protect
116	ECO_IN	I	ECO sensor level detection
117	V1.8C1	I	1.8V (Digital)
118	DecV1V8	I	1.8V
119	KEY_IN	I	Key scan data
120	VDO-DET	I	Video DET input
121	VSSC1+P1	-	Digital GND
122	S_V_DET	I	S-Video DET input
123	P25/PWM4	O	GTVA_reset
124	V1.8C3	I	1.8V (Digital)
125	VssC3	-	GND
126	P12/Int2	I	External interrupt
127	SDA0	I/O	I2C bus data (for memory)
128	SCL0	I	I2C bus clock (for memory)

SECTION 3 DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

- Unplug the power cord.
 - (1) Remove the 9 screws **[A]** and 4 screws **[B]** as shown in Fig.1.
 - (2) Withdraw the REAR COVER toward you.

CAUTION:

When reinstalling the rear cover, carefully push it inward after inserting the MAIN PWB into the REAR COVER groove.

3.1.2 REMOVING THE MAIN PW BOARD

- Remove the REAR COVER.
 - (1) Slightly raise the both sides of the MAIN PWB by hand.
 - (2) Withdraw the MAIN PWB backward.
(If necessary, take off the wire clamp and connectors, etc.)

3.1.3 REMOVING THE SPEAKER

- Remove the REAR COVER.
 - (1) Remove the 2 screws **[C]** as shown in Fig.1.
 - (2) Follow the same steps when removing the other hand SPEAKER.

3.1.4 CHECKING THE MAIN PW BOARD

- To check the back side of the MAIN PWB.
 - (1) Pull out the MAIN PWB. (Refer to REMOVING THE MAIN PW BOARD).
 - (2) Erect the MAIN PWB vertically so that you can easily check its back side.

CAUTIONS:

- Before turning on power, make sure that the CRT earth wire and other connectors are properly connected.
- When repairing, connect the DEG. COIL to the DEG. connector on the MAIN PWB.

3.1.5 WIRE CLAMPING AND CABLE TYING

- (1) Be sure to clamp the wire.
- (2) Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

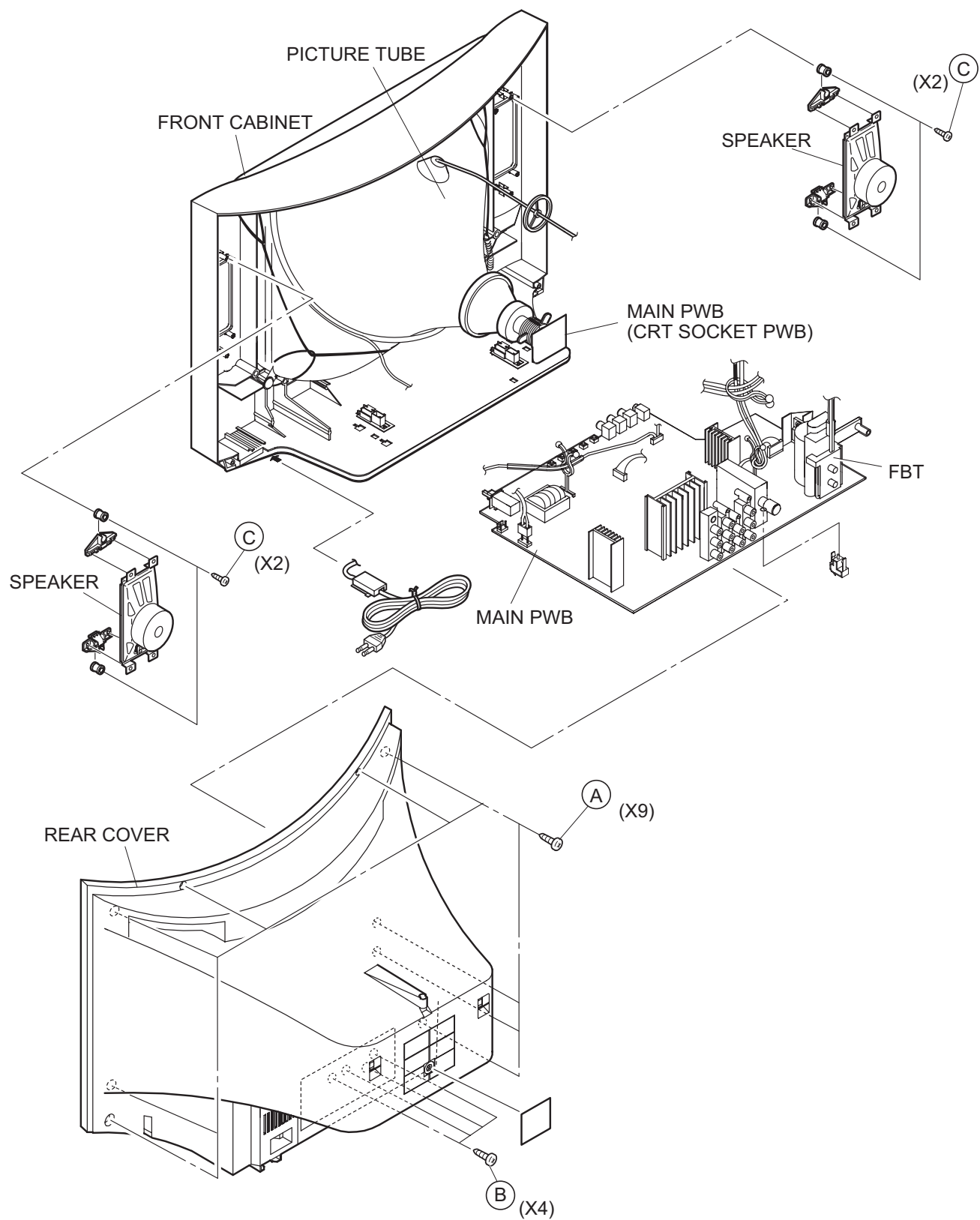


Fig.1

3.2.3 FACTORY SETTING VALUE

■ SETTING OF SYSTEM CONSTANT SET

Setting item	Setting content	Setting value
		AV-2155WE/KSK
SYSTEM	→ MULTI ↔ TRIPLE ↔ PAL ↔ THAI ←	MULTI
COMB	→ YES ↔ NO ←	NO
TILT	→ YES ↔ NO ←	NO
SUPER BASS	→ YES ↔ NO ←	NO
TEXT	→ SINGLE ↔ NO ↔ PAT ←	PAT
LANGUAGE	E/R/U	E/R/U
SOUND	→ STEREO ↔ PB ↔ MONO ←	STEREO
BILINGUAL	→ YES ↔ NO ←	NO
BLUE BACK MUTE	→ YES ↔ NO ←	NO
COLOUR AUTO	→ YES ↔ NO ←	NO
ECO SENSOR	→ YES ↔ NO ←	YES
SURROUND	→ YES ↔ NO ←	YES
PICTURE BOOSTER	→ YES ↔ NO ←	NO
COMPONENT	→ YES ↔ NO ←	YES
PIP	→ YES ↔ NO ←	NO
S INPUT	→ YES ↔ NO ←	YES

Table 1

■ SETTING OF BASIC FUNCTIONS

Setting item	Setting value
POWER	Off
SUB POWER	On
VOLUME	15
INPUT	TV
COLOR SYSTEM	PAL
PICTURE MODE (VSM)	BRIGHT
CINEMA SURROUND (RF)	OFF
OFF TIMER	OFF
CHANNEL POSITION	PR01

Table 2

■ SETTING OF MENU SCREEN

Setting item	Setting value
VNR	AUTO
COMPRESS (16:9)	OFF
CHILD LOCK	OFF
BLUE BACK	ON
VIDEO-2 SET	COMPONENT
AUTO PROGRAM	Refer to OPERATING INSTRUCTIONS
EDIT / MANUAL	Refer to OPERATING INSTRUCTIONS
LANGUAGE	ENG
TEXT LANGUAGE	GROUP-3
WHITE BALANCE (RF)	COOL
BALANCE	Centre
SOUND MODE (RF)	MUSIC
AI VOLUME	OFF
FAVORITE CH RED	PR01
FAVORITE CH GREEN	PR02
FAVORITE CH YELLOW	PR03
FAVORITE CH BLUE	PR04
AI ECO SENSOR	OFF
AUTO SIGNAL DETECT	ON
DVD PICTURE MODE	OFF
TINT COLOR	Centre
WHITE BALANCE (DVD)	COOL
SOUND MODE (DVD)	MUSIC
CINEMA SURROUND (DVD)	OFF

Table 3

■ SERVICE MENU SETTING ITEMS

Setting item	Setting value
1. IF	1. VCO 2. DELAY POINT
2. V/C	1. SCREEN 2. CUTOFF(B/G) 3. WDR(R/G/B) 4. BRIGHT(TV/VDO 1/2/3) 5. CONT(TV/VDO 1/2/3/TV 16:9/VDO 16:9) 6. COLOUR(TV/VDO1/2/3/DVD) 7. TINT(TV/VDO 1/2/3) 8. SHARP [Do not adjust] 9. Y DELAY [Do not adjust] 10. TINT DVD [Do not adjust] 11. AMP T. SHARP 12. TWIN CONT.
3. AUDIO [Do not adjust]	1. DCXO ADJ 2. NICAM lower ERR LIM 3. NICAM upper ERR LIM 4. A2 ID THR 5. MENU EQUALIZER
4. DEF	1. V-SHIFT 2. V-SLOPE 3. V-SIZE 4. H-CENT 5. H-SIZE 6. TRAPEZ 7. EW-PIN 8. COR-UP 9. COR-LO 10. ANGLE 11. BOW 12. V-S.CR 13. V-LIN 14. V-ZOOM 15. V-SCROLL
5. VSM W/B (BRIGHT/STANDARD/SOFT) (COOL/WARM/NORMAL)	1. BRIGHT 2. CONT 3. COLOUR 4. SHARP 5. HUE 1. R DRIVE 2. G DRIVE 3. B DRIVE
6. STATUS [Display only]	
7. PLUG & PLAY(ON) [Display only]	

Table 4

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

- (1) Avoid heating for more than 3 seconds.
- (2) Do not rub the electrodes and the resist parts of the pattern.
- (3) When removing a chip part, melt the solder adequately.
- (4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

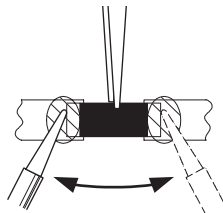
- (1) Use a high insulation soldering iron with a thin pointed end of it.
- (2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

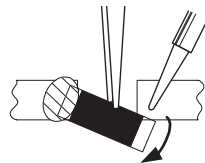
1. How to remove Chip parts

[Resistors, capacitors, etc.]

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with the tweezers and remove the chip part.

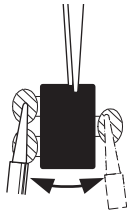


[Transistors, diodes, variable resistors, etc.]

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



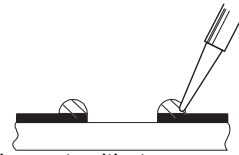
NOTE :

After removing the part, remove remaining solder from the pattern.

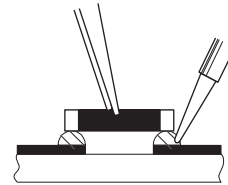
2. How to install Chip parts

[Resistors, capacitors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.

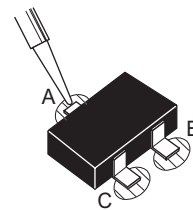


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

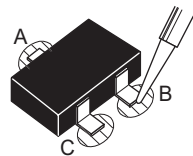


[Transistors, diodes, variable resistors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead **A** as indicated in the figure.



- (4) Then solder leads **B** and **C**.



SECTION 4

ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

- (1) You can make the necessary adjustments for this unit with either the remote control unit or with the adjustment equipment and parts as given below.
- (2) Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values used for setting the screen to its optimum condition may differ from the initial settings.
- (3) Make sure that AC power is turned on correctly.
- (4) Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
- (5) Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
- (6) Never touch any adjustment parts, which are not specified in the list for this variable resistors, transformers, trimmer capacitors, etc.

4.2 PRESETTING BEFORE ADJUSTMENT

Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

■ User mode setting position

Setting item	Setting value
PICTURE MODE (VSM)	BRIGHT
VNR	OFF
AI ECO SENSOR	OFF
BALANCE	Centre
CINEMA SURROUND (RF)	OFF
COMPRESS (16:9)	OFF

4.3 MEASURING INSTRUMENT AND FIXTURES

- (1) DC voltmeter (or Digital voltmeter)
- (2) Oscilloscope
- (3) Signal generator (Pattern generator) [PAL/SECAM/NTSC]
- (4) Remote control unit

4.4 ADJUSTMENT ITEMS

■ B1 VOLTAGE

■ FOCUS ADJUSTMENT

■ IF CIRCUIT ADJUSTMENTS

- IF VCO adjustment
- DELAY POINT (AGC TAKE-OVER) adjustment

■ VIDEO CIRCUIT ADJUSTMENTS

- WHITE BALANCE (Low light) adjustment
- WHITE BALANCE (High light) adjustment
- SUB BRIGHT adjustment
- SUB CONTRAST adjustment
- SUB COLOUR 1 adjustment
- SUB COLOUR 2 adjustment
- SUB TINT 1 adjustment
- SUB TINT 2 adjustment

■ AUDIO SETTING

■ DEFLECTION CIRCUIT ADJUSTMENTS

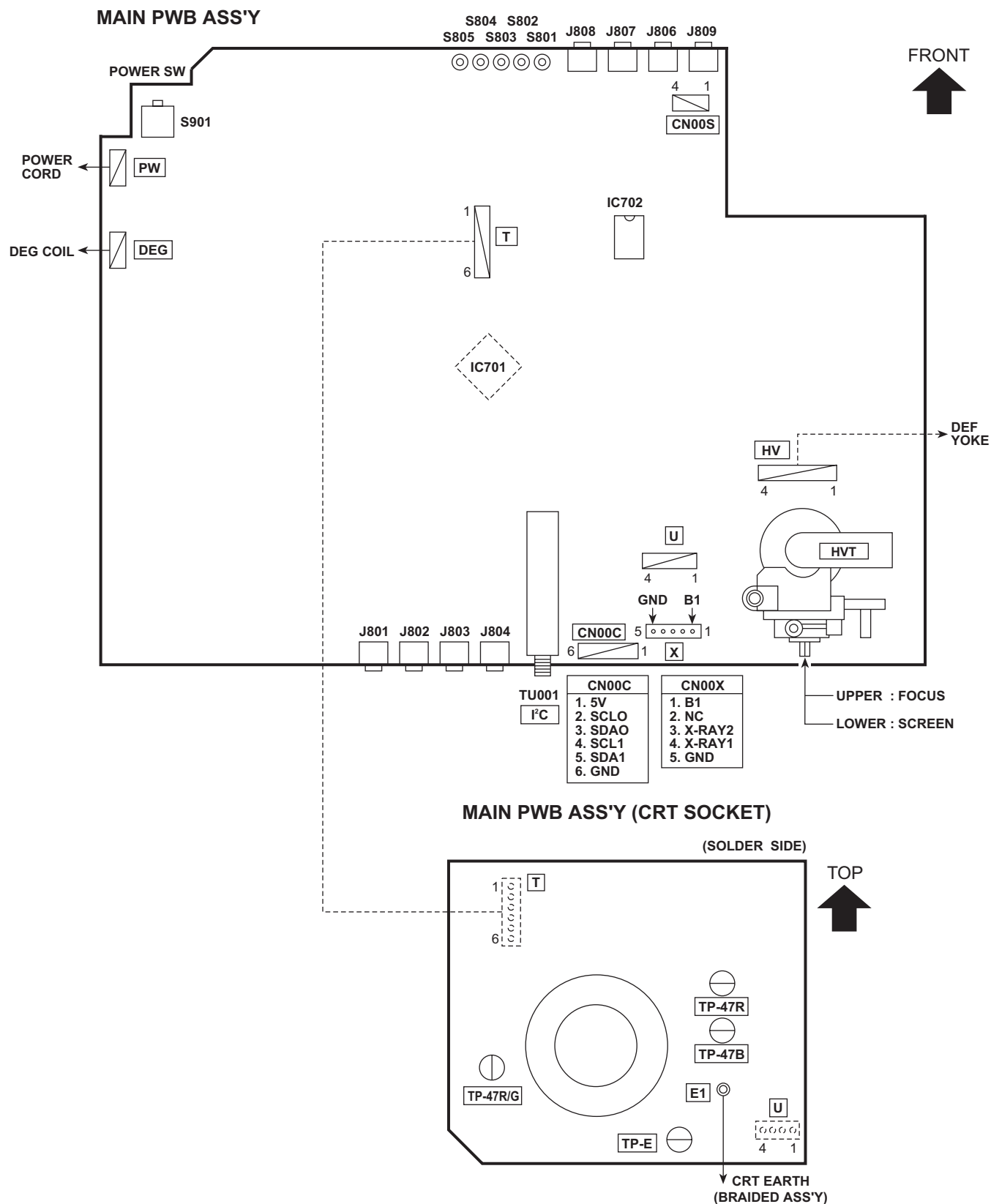
- V.SLOPE adjustment
- V.POSITION adjustment
- V.HEIGHT adjustment
- H.POSITION adjustment
- V. LINEARITY adjustment
- H. PARALLEL adjustment
- H.BOW adjustment

■ VSM PRESET SETTING

■ PURITY AND CONVERGENCE ADJUSTMENTS

- PURITY adjustment
- STATIC CONVERGENCE adjustment
- DYNAMIC CONVERGENCE adjustment

4.5 ADJUSTMENT LOCATIONS



4.6 BASIC OPERATION IN SERVICE MENU

Operate the SERVICE MENU with the remote control unit.

4.6.1 SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings:

1. IF	For entering/adjusting the setting values (adjustment values) of the IF circuit.
2. V/C	For entering/adjusting the setting values (adjustment values) of the VIDEO circuit.
3. AUDIO	For entering/adjusting the setting values (adjustment values) of the AUDIO circuit.
4. DEF	For entering/adjusting the setting values (adjustment values) of the DEFLECTION circuit.
5. VSM W/B	For setting the values of STANDARD, SOFT, BRIGHT and COOL, NORMAL, WARM.
6. STATUS	This is not used for service.
7. PLUG & PLAY (ON)	This is not used for service.

4.6.2 BASIC OPERATION IN SERVICE MENU

1. HOW TO ENTER SERVICE MENU

Press the [DISPLAY] key and the [PICTURE MODE] key on the remote control unit simultaneously.

The SERVICE MENU screen will be displayed. (See Fig. 1 on the next page.)

2. SELECTION OF SUB MENU SCREEN

Press one of the keys 1 to 6 on the remote control unit, and select the SUB MENU SCREEN from the SERVICE MENU. (See Fig. 1 on the next page.)

SERVICE MENU → SUB MENU

- | | |
|----------|---------------------|
| 1. IF | 5. VSM W/B |
| 2. V/C | 6. STATUS |
| 3. AUDIO | 7. PLUG & PLAY (ON) |
| 4. DEF | |

3. METHOD OF SETTING

NOTES:

- Once the setting values are set, they are memorized automatically.
- It must not be adjusted without inputting a signal.

(1) 1. IF

[1.VCO] : Under normal conditions, no adjustment is required.

(a) [1] key	Select 1. IF .
(b) [1] key	Select 1. VCO .
(c) [DISPLAY] key	When this is pressed twice, you will return to the SERVICE MENU.

[2.DELAY POINT]

(a) [1] key	Select 1. IF .
(b) [2] key	Select 2. DELAY POINT .
(c) MENU [◀] / [▶] key	Adjust the setting value.
(d) [DISPLAY] key	When this is pressed twice, you will return to the SERVICE MENU.

(2) 2. V/C, 3. AUDIO and 4. DEF

(a) [2] ~ [4] keys	Select one from 2. V/C , 3. AUDIO and 4. DEF
(b) MENU [▲] / [▼] key	Select setting items.
(c) MENU [◀] / [▶] key	Adjust the setting values of the setting items. Use the number keys on the remote control unit for setting the WHITE BALANCE. For the setting, refer to each item concerned.
(d) [DISPLAY] key	When this is pressed, you will return to the SERVICE MENU.

(3) 5. VSM W/B

(a) [5] keys	Select 5. VSM W/B .
(b) MENU [OK] key	Select preset items.
(c) MENU [▲] / [▼] key	Adjust setting items.
(d) MENU [◀] / [▶] key	Adjust the setting values of the setting items.
(e) [DISPLAY] key	When this is pressed, you will return to the SERVICE MENU.

(4) 6. STATUS

This is for display only.

(5) 7. PLUG & PLAY (ON)

This is not used for service.

4. Release of SERVICE MENU

After completing the setting, return to the SERVICE MENU by pressing the [DISPLAY] key, then again press the [DISPLAY] key to return to the normal screen.

4.6.3 SERVICE MENU FLOW CHART

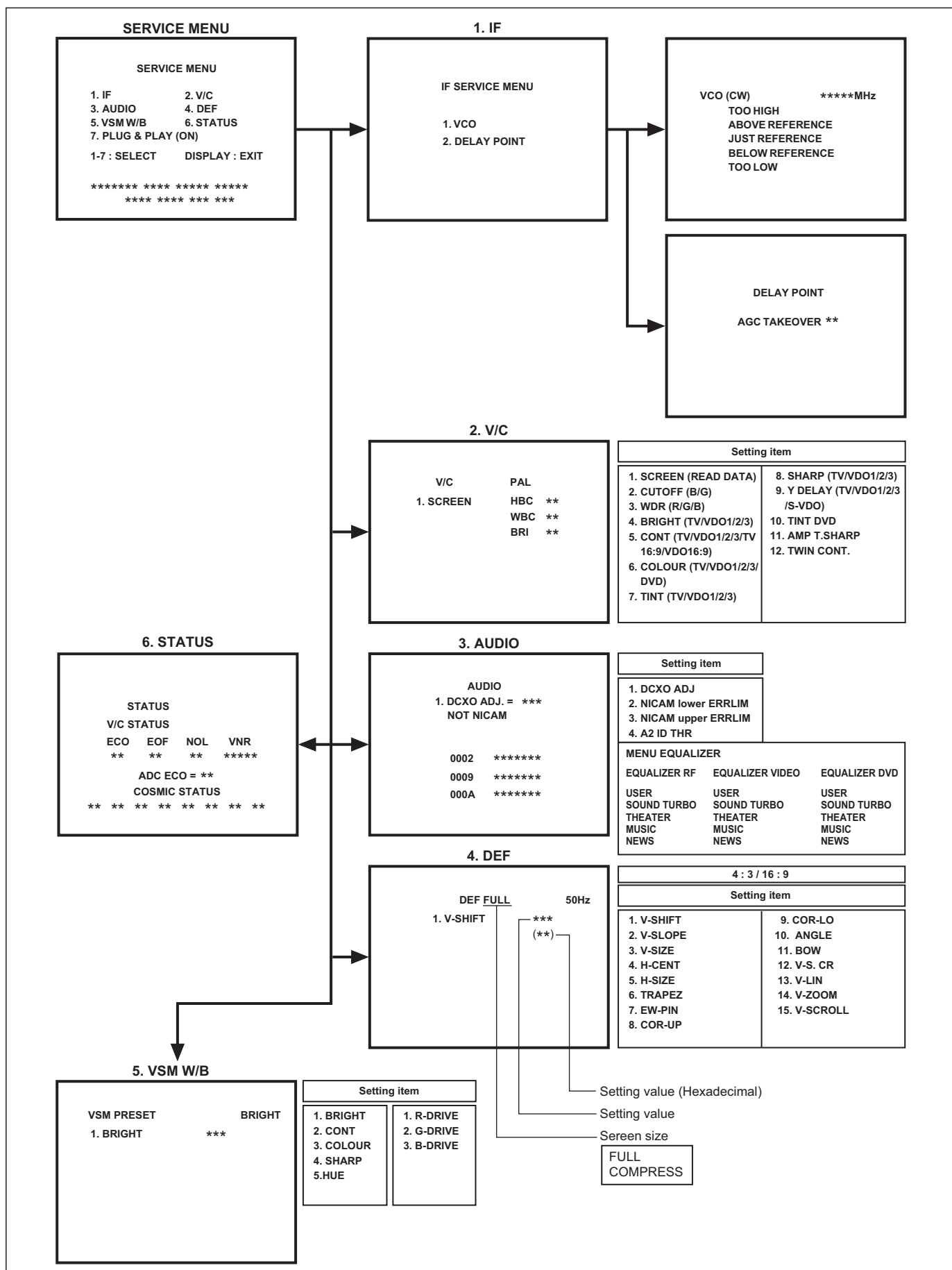


Fig.1

4.7 ADJUSTMENT PROCEDURE

4.7.1 B1 VOLTAGE

Item	Measuring instrument	Test point	Adjustment part	Description
B1 VOLTAGE check	Signal generator DC voltmeter	B1 (pin 1) GND (pin 5) [CN00X connector in MAIN PWB]		(1) Receive a PAL black and white signal. (2) Connect a DC voltmeter to B1 and GND (between pins 1 and 5 of the connector CN00X). (3) Make sure that the voltage is DC134.5V ± 2V .

4.7.2 FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator		FOCUS VR [In HVT]	Notes: - Set PICTURE MODE (VSM) to "BRIGHT". - The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is affected by the FOCUS adjustment.) If any deviation in CONVERGENCE is found, PURITY must be adjusted to restore the convergence. - Receive a PAL crosshatch signal. - Adjust the FOCUS VR so that the vertical and horizontal lines will be clear and in fine detail on the screen. - Make sure that the picture is in focus even when the screen gets darkened.

4.7.3 IF CIRCUIT ADJUSTMENTS

Item	Measuring instrument	Test point	Adjustment part	Description																			
IF VCO check	Remote control unit		[1. IF] 1. VCO (CW)	Note: - Under normal conditions, no adjustment is required. - Receive a PAL broadcast signal. - Select 1. IF from the SERVICE MENU. - Select 1. VCO. - Check the characters colour of the JUST REFERENCE displayed to yellow. - Press the [DISPLAY] key three times to return to normal screen.																			
VCO (CW) ***.*** MHz ← Receiving frequency TOO HIGH ABOVE REFERENCE JUST REFERENCE ← YELLOW BELOW REFERENCE TOO LOW DISPLAY : EXIT																							
DELAY POINT (AGC TAKE-OVER) adjustment	Remote control unit		[1. IF] 2. DELAY POINT	- Receive a PAL black and white broadcast signal (colour off). - Select 1. IF from the SERVICE MENU. - Select 2. DELAY POINT. - Adjust in order to eliminate any noise or beat from the image. Any increase above the initial value produces the noise and any decrease below it produces the beat. - Press the [DISPLAY] key three times to return to the normal screen. - Turn to other channels and make sure that there are no irregularities.																			
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2">Adjustment item</th><th colspan="4">Initial setting value</th></tr> <tr> <th colspan="2">NTSC 3.58</th><th colspan="2">OTHERS</th></tr> <tr> <td></td><th>VHF</th><th>UHF</th><th>VHF</th><th>UHF</th></tr> <tr> <td>2. DELAY POINT (AGC TAKE-OVER)</td><td>28*</td><td>28*</td><td>28*</td><td>28*</td></tr> </table>					Adjustment item	Initial setting value				NTSC 3.58		OTHERS			VHF	UHF	VHF	UHF	2. DELAY POINT (AGC TAKE-OVER)	28*	28*	28*	28*
Adjustment item	Initial setting value																						
	NTSC 3.58		OTHERS																				
	VHF	UHF	VHF	UHF																			
2. DELAY POINT (AGC TAKE-OVER)	28*	28*	28*	28*																			

4.7.4 VIDEO CIRCUIT ADJUSTMENTS

- The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- Do not change the initial setting values of the setting (adjustment) items not listed in "ADJUSTMENT PROCEDURE".
- The initial setting values in parenthesis () are fixed offset values, needing no further adjustment.

Adjustment item		Variable range	Initial setting value					
			PAL	SECAM	NTSC3.58	NTSC4.43	COMPONENT (V-2)	
1. SCREEN	BRI	0 ~ 63	31	31	31	31	31	31
2. CUTOFF	B	0 ~ 63(-32 ~ +31)	43	43	43	43	(+0)	(+0)
	G	0 ~ 63(-32 ~ +31)	28	28	28	28	(-3)	(-3)
3. WDR	R	0 ~ 63(-32 ~ +31)	35	35	35	35	(0)	(0)
	G	0 ~ 63(-32 ~ +31)	32	32	32	32	(0)	(0)
	B	0 ~ 63(-32 ~ +31)	40	40	40	40	(0)	(0)
4. BRIGHT	RF	0 ~ 63	34	34	34	34	---	---
	VIDEO 1(COMPOSITE/S)	(-32 ~ +31)	(+2)	(+2)	(+2)	(+2)	---	---
	VIDEO 2(COMPONENT)	(-32 ~ +31)	(+2)	(+2)	(+2)	(+2)	(+1)	(+1)
	VIDEO 3(COMPOSITE)	(-32 ~ +31)	(+2)	(+2)	(+2)	(+2)	---	---
5. CONT.	RF	0 ~ 63	18	18	18	18	---	---
	VIDEO	(-32 ~ +31)	(-1)	(-1)	(-1)	(-1)	(-2)	(-2)
6. COLOUR	RF	0 ~ 63(-32 ~ +31)	42	29	31	(-2)	---	---
	VIDEO	(-32 ~ +31)	(+2)	(-1)	(+1)	(+0)	(-1)	(-2)
7. TINT	RF	0 ~ 63(-32 ~ +31)	---	---	32	(+2)	---	---
	VIDEO	(-32 ~ +31)	---	---	(0)	(+2)	---	---
8. SHARP	RF	0 ~ 63	48	48	48	48	---	---
	VIDEO	0 ~ 63	48	48	48	48	40	40
9. Y DELAY	RF	0 ~ 15	5	7	5	4	---	---
	VIDEO	0 ~ 15	6	9	7	7	---	---
	S-VIDEO	0 ~ 15	7	9	9	9	---	---
10. TINT DVD	RF	0 ~ 63(-32 ~ +31)	37	(-8)	(+0)	(+0)	---	---
	VIDEO	(-32 ~ +31)	(+1)	(-8)	(+0)	(+0)	(+3)	(+1)
11. AMP T.SHARP	RF, VIDEO	0 ~ 63	0	0	0	0	0	0
12. TWIN CONT.	TWIN (RF)		-15	-15	-15	-15	---	---
	TWIN (VIDEO)		---	---	---	---	---	---

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (Low light) adjustment	Signal generator		[2. V/C] 2. CUTOFF (B) 2. CUTOFF (G)	Note: • Set PICTURE MODE (VSM) to "BRIGHT". - COMPOSITE WHITE BALANCE - (1) Receive a PAL black and white signal (colour off). (2) Select 2. V/C from the SERVICE MENU. (3) Select 2. CUTOFF (B) and (G). (4) Set each value to initial setting value with the [4] / [7] keys and [5] / [8] keys. (5) Turn the SCREEN VR fully counterclockwise, then slowly turn it clockwise to where a red, blue or green colour is faintly visible. (6) Use the [4] / [7] and [5] / [8] keys to adjust so that the other 2 colours appear white. (7) Turn the SCREEN VR to where the single horizontal line glows faintly. (8) Press the [DISPLAY] key twice to return to the normal screen. - COMPONENT WHITE BALANCE - (1) Receive a PAL component black and white signal (colour off). (2) Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. (3) Adjust COMPONENT WHITE BALANCE in the same way as "COMPOSITE WHITE BALANCE".
	Remote control unit		SCREEN VR [In HVT]	

V/C PAL

2. CUTOFF (B) ** (**)

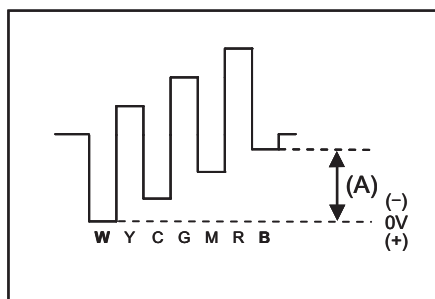
 (G) ** (**)

REMOTE CONTROL UNIT

Adjustment Item		Variable range	Initial setting value	
			COMPOSITE	COMPONENT
2. CUT OFF	B	0 ~ 63 (-32~+31)	43	(+0)
	G	0 ~ 63 (-32~+31)	28	(-3)

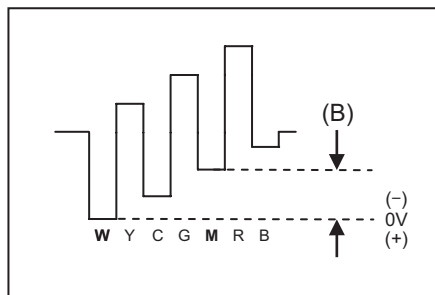
Item	Measuring instrument	Test point	Adjustment part	Description										
WHITE BALANCE (High light) adjustment	Signal generator Remote control unit		[2. V/C] 3. WDR (R) 3. WDR (G) 3. WDR (B)	Notes: • Proceed to the following adjustment after having completed the WHITE BALANCE (Low light) adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". (1) Receive a PAL black and white signal (colour off). (2) Select 2. V/C from the SERVICE MENU. (3) Select 3. WDR (R), (G) and (B). (4) Set each value to initial setting value with the [4] to [9] keys. (5) Use the [4] to [9] keys to produce a white screen. (6) Press the [DISPLAY] key twice to return to the normal screen. <table><tr><th>Adjustment Item</th><th>Variable range</th><th>Initial setting value</th></tr><tr><td rowspan="3">3. WDR</td><td>R</td><td>0 ~ 63</td></tr><tr><td>G</td><td>0 ~ 63</td></tr><tr><td>B</td><td>0 ~ 63</td></tr></table>	Adjustment Item	Variable range	Initial setting value	3. WDR	R	0 ~ 63	G	0 ~ 63	B	0 ~ 63
Adjustment Item	Variable range	Initial setting value												
3. WDR	R	0 ~ 63												
	G	0 ~ 63												
	B	0 ~ 63												
V/C 3. WDR PAL (R) ** (**) (G) ** (**) (B) ** (**) REMOTE CONTROL UNIT 1 2 3 4 5 6 7 8 9 R DRIVE (▲) G DRIVE (▲) B DRIVE (▲) R DRIVE (▼) B DRIVE (▼) G DRIVE (▼)														
SUB BRIGHT adjustment	Remote control unit		[2. V/C] 4. BRIGHT	Notes: • Proceed to the following adjustment after having completed the WHITE BALANCE (Low light) and WHITE BALANCE (High light) adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". (1) Receive a PAL broadcast. (2) Select 2. V/C from the SERVICE MENU. (3) Select 4. BRIGHT. (4) Set the initial setting value. (5) If the brightness is not best with the initial setting value, make fine adjustment until you get the best brightness. (6) Press the [DISPLAY] key twice to return to the normal screen.										
SUB CONTRAST adjustment	Remote control unit		[2. V/C] 5. CONT	Notes: • Proceed to the following adjustment after having completed the SUB BRIGHT adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". (1) Receive a PAL broadcast. (2) Select 2. V/C from the SERVICE MENU. (3) Select 5. CONT. (4) Set the initial setting value. (5) If the contrast is not best with the initial setting value, make fine adjustment until you get the best contrast. (6) Press the [DISPLAY] key twice to return to the normal screen.										

Item	Measuring instrument	Test point	Adjustment part	Description
SUB COLOUR 1 adjustment	Remote control unit		[2. V/C] 6. COLOUR	[Method of adjustment without measuring instrument] Notes: • Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". - PAL COLOUR - (1) Receive a PAL broadcast. (2) Select 2. V/C from the SERVICE MENU. (3) Select 6. COLOUR. (4) Set the initial setting value for PAL COLOUR. (5) If the colour is not best with the initial setting value, adjust until you get the best colour. (6) Press the [DISPLAY] key twice to return to the normal screen. - SECAM COLOUR - (1) Receive a SECAM broadcast. (2) Press the [COLOUR SYSTEM] key to select the SECAM colour system. (3) Adjust SECAM COLOUR in the same way as for "PAL COLOUR". - NTSC 3.58 COLOUR - (1) Receive a NTSC 3.58MHz broadcast. (2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. (3) Adjust NTSC 3.58 COLOUR in the same way as for "PAL COLOUR". - NTSC 4.43 COLOUR - When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.
SUB COLOUR 2 adjustment	Signal generator Oscilloscope Remote control unit	TP-47B TP-E [CRT SOCKET PWB]	[2. V/C] 6. COLOUR	[Method of adjustment using measuring instrument] Notes: • Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". - PAL COLOUR - (1) Receive a PAL colour bar signal (full field colour bar 75% white). (2) Select 2. V/C from the SERVICE MENU. (3) Select 6. COLOUR. (4) Set the initial setting value of PAL COLOUR. (5) Connect the oscilloscope to TP-47B and TP-E. (6) Adjust PAL COLOUR to set the value (A) in the figure to +29V. - SECAM COLOUR - (1) Receive a SECAM colour bar signal (colour bar 75% white). (2) Press the [COLOUR SYSTEM] key to select the SECAM colour system. (3) Set the initial setting value of SECAM COLOUR. (4) Adjust SECAM COLOUR to set the value (A) in the figure to +4V. - NTSC 3.58 COLOUR - (1) Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). (2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. (3) Set the initial setting value of NTSC 3.58 COLOUR. (4) Adjust NTSC 3.58 COLOUR to set the value (A) in the figure to +19V. - NTSC 4.43 COLOUR - When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.



Item	Measuring instrument	Test point	Adjustment part	Description
SUB TINT 1 adjustment	Signal generator Remote control unit		[2. V/C] 7. TINT	[Method of adjustment without measuring instrument] Notes: • Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. • Set PICTURE MODE (VSM) to "BRIGHT". - PAL PHASE (Tint) - (1) Receive a PAL 3.58 colour bar signal (full field colour bar 75% white). (2) Press the [COLOUR SYSTEM] key to select the PAL colour system. (3) Select 2. V/C from the SERVICE MENU. (4) Select 10. TINT DVD (PAL). (5) Set the initial setting value of PAL. (6) If you cannot get the best tint with the initial value, make fine adjustment until you get the best tint. (7) Press the [DISPLAY] key twice to return to the normal screen. - NTSC 3.58 TINT - (1) Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). (2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. (3) Select 2. V/C from the SERVICE MENU. (4) Select 7. TINT. (5) Set the initial setting value of NTSC 3.58. (6) If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. (7) Press the [DISPLAY] key twice to return to the normal screen. - NTSC 4.43 TINT - When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.

Item	Measuring instrument	Test point	Adjustment part	Description
SUB TINT 2 adjustment	Signal generator Oscilloscope Remote control unit	TP-47B TP-E [CRT SOCKET PWB]	[2. V/C] 7. TINT	[Method of adjustment using measuring instrument] Notes: - Proceed to the following adjustment after having completed the SUB CONTRAST adjustment. - Set PICTURE MODE (VSM) to "BRIGHT". - PAL 3.58 TINT - - Receive a PAL colour bar signal (full field colour bar 75% white). - Press the [COLOUR SYSTEM] key to select the PAL colour system. - Select 2. V/C from the SERVICE MENU. - Select 10. TINT DVD (PAL). - Set the initial setting value of PAL. - Connect the oscilloscope to TP-47B and TP-E. - Adjust PAL TINT to set the value (B) in the figure to +20V. - Press the [DISPLAY] key twice to return to the normal screen. - NTSC 3.58 TINT - - Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). - Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system. - Select 2. V/C from the SERVICE MENU. - Select 7. TINT. - Set the initial setting value of NTSC 3.58. - Connect the oscilloscope to TP-47B and TP-E. - Adjust NTSC 3.58 TINT to set the value (B) in the figure to +1V. - Press the [DISPLAY] key twice to return to the normal screen. - NTSC 4.43 TINT - When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.



4.7.5 AUDIO SETTING

This submenu is for display only, no adjustment is required.

Function	Item	Setting value
AUDIO	1. DC XO ADJ	04H
	2. NICAM LOWER ERR LIM	6FH
	3. NICAM UPPER ERR LIM	B0H
	4. A2 ID THR	00H

Function	MODE	Item	100Hz	300Hz	1kHz	3kHz	8kHz
MENU EQUALIZER	RF	SOUND TURBO	+12	+5	+3	+8	+9
		THEATER	+5	+4	-8	+3	+4
		MUSIC	+8	0	-1	+3	+4
		NEWS	+1	+5	+8	+3	-2
		USER	0	0	0	0	0
	VIDEO	SOUND TURBO	+12	+6	+4	+8	+12
		THEATER	+5	+4	-8	+3	+6
		MUSIC	+8	0	-1	+3	+6
		NEWS	+1	+5	+8	+3	-2
		USER	0	0	0	0	0
	DVD	SOUND TURBO	+12	+6	+4	+8	+12
		THEATER	+5	+4	-8	+3	+6
		MUSIC	+8	0	-1	+3	+6
		NEWS	+1	+5	+8	+3	-2
		USER	0	0	0	0	0

4.7.6 DEFLECTION CIRCUIT ADJUSTMENTS

- The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- When performing deflection circuit adjustment, adjusts PAL signal (fv: 50 Hz) in 4:3 mode and 16:9 mode respectively, and adjust the NTSC signal (fv: 60 Hz) similarly.

Note:

Proceed to the following adjustment after having completed the adjustments of SUB BRIGHT and SUB PICTURE.

■ 4. DEF

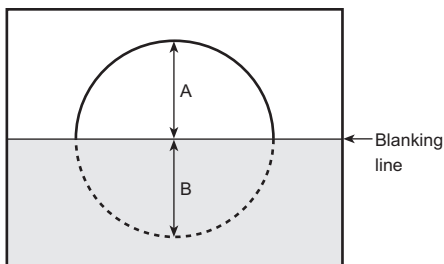
Adjustment item	Variable range		Initial setting value			
			4:3		COMPRESS (16:9)	
	4:3 50Hz	Others	50Hz	60Hz	50Hz	60Hz
1. V-SHIFT	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
2. V-SLOPE	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
3. V-SIZE	0 ~ 63	-32 ~ +31	+38*	0*	-14*	0*
4. H-CENT	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
5. H-SIZE	0 ~ 63	-32 ~ +31	0	0	0	0
6. TRAPEZ	0 ~ 63	-32 ~ +31	0	0	0	0
7. EW-PIN	0 ~ 63	-32 ~ +31	0	0	0	0
8. COR-UP	0 ~ 63	-32 ~ +31	0	0	0	0
9. COR-LO	0 ~ 63	-32 ~ +31	0	0	0	0
10. ANGLE	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
11. BOW	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
12. V-S.CR	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
13. V-LIN	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
14. V-ZOOM	0 ~ 63	-32 ~ +31	(+30~+37)	(0)	-13*	+3*
15. V-SCROLL	0 ~ 63	-32 ~ +31	(+32)	(0)	(0)	(0)

NOTE: The value with an asterisk * is variable for adjustment. The values in parenthesis () are fixed values.

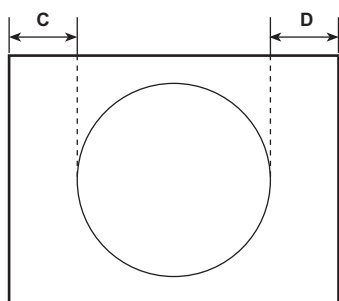
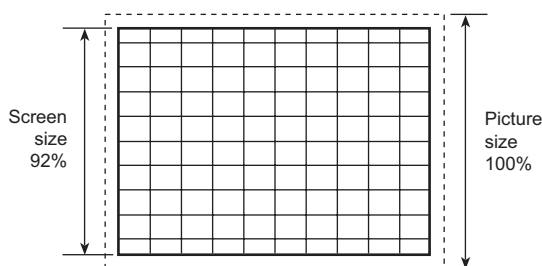
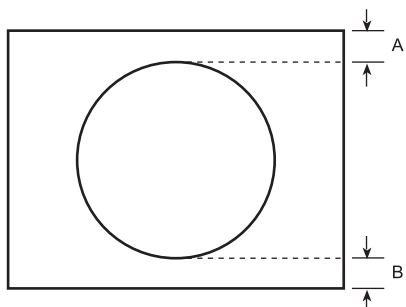
V-ZOOM DATA can adjust follow data range in case measurement line power on is appeared.

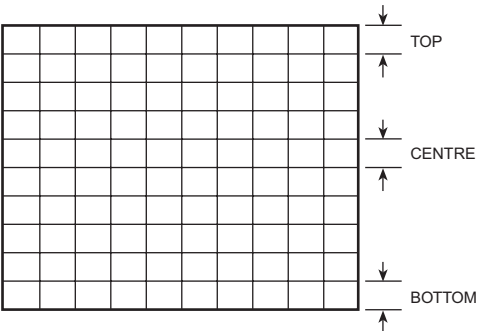
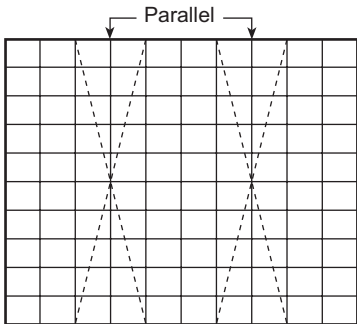
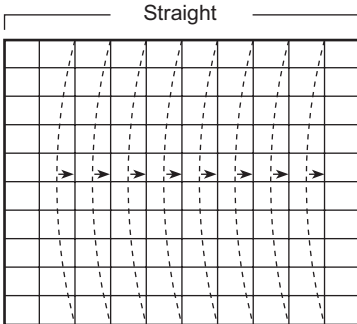
■ COMPRESS: OFF (4:3)

Item	Measuring instrument	Test point	Adjustment part	Description
V. SLOPE adjustment	Signal generator		[4. DEF] 2. V-SLOPE	- PAL V. SLOPE - (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select 4. DEF from the SERVICE MENU. (3) Select 2. V-SLOPE . (4) Set the initial setting value of 2. V-SLOPE . (5) Adjust 2. V-SLOPE to make " A = B ". (6) Press the [DISPLAY] key to return to SERVICE MENU screen. - NTSC V. SLOPE - (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V-SLOPE in the same way as for "PAL V-SLOPE".
	Remote control unit			

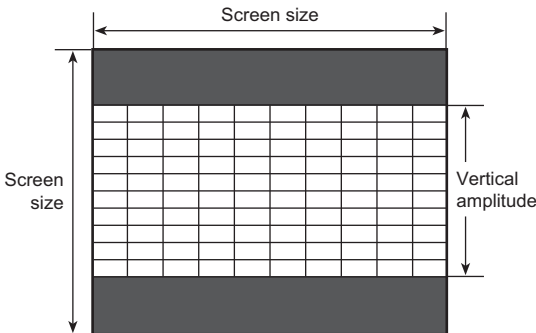
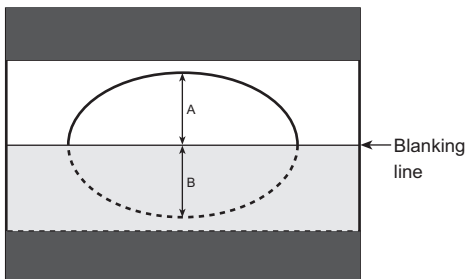


Item	Measuring instrument	Test point	Adjustment part	Description
V. POSITION adjustment	Signal generator		[4. DEF] 1. V-SHIFT	- PAL V. POSITION - (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select 1. V-SHIFT . (3) Set the initial setting value of 1. V-SHIFT . (4) Adjust 1. V-SHIFT to make " A = B ". - NTSC V. POSITION - (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. POSITION in the same way as for "PAL V. POSITION".
	Remote control unit			
V. HEIGHT adjustment	Signal generator		[4. DEF] 3. V-SIZE 14. V-ZOOM	- PAL V. HEIGHT - (1) Receive a PAL crosshatch signal. (2) Select 3. V-SIZE . (3) Set the initial setting value of 3. V-SIZE . (4) Select 14. V-ZOOM . (5) Set the initial setting value of 14. V-ZOOM . (6) Adjust 14. V-ZOOM to make the vertical screen size to 92% of the picture size. - NTSC V. HEIGHT - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC V. HEIGHT in the same way as for "PAL V. HEIGHT".
	Remote control unit			
H. POSITION adjustment	Signal generator		[4. DEF] 4. H-CENT	- PAL H. POSITION - (1) Receive a PAL circle pattern signal. (2) Select 4. H-CENT . (3) Set the initial setting value of 4. H-CENT . (4) Adjust 4. H-CENT to make " C = D ". - NTSC H. POSITION - (1) Receive a NTSC circle pattern signal. (2) Make similar adjustment of NTSC H. POSITION in the same way as for "PAL H. POSITION".
	Remote control unit			

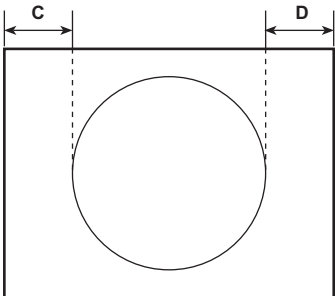


Item	Measuring instrument	Test point	Adjustment part	Description
V.LINEARITY adjustment	Signal generator Remote control unit		[4. DEF] 12. V-S. CR 13. V-LIN	- PAL V. LINEARITY - (1) Receive a PAL crosshatch signal. (2) Select 12. V-S.CR . (3) Set the initial setting value of 12. V-S. CR . (4) Select 13. V-LIN . (5) Set the initial setting value of 13. V-LIN . (6) Adjust 12. V-S. CR and 13. V-LIN so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform. - NTSC V. LINEARITY - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC V-S. CR in the same way as for "PAL V-S. CR".
				
H. PARALLEL adjustment	Signal generator Remote control unit		[4.DEF] 10. ANGLE	- PAL H. PARALLEL - (1) Receive a PAL crosshatch signal. (2) Select 10. ANGLE . (3) Set the initial setting value of 10. ANGLE . (4) Adjust 10. ANGLE to optimize the trapezium distortion at the centre of the screen. - NTSC H. PARALLEL - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC H. PARALLEL in the same way as for "PAL H. PARALLEL".
				
H. BOW adjustment	Signal generator Remote control unit		[4.DEF] 11. BOW	- PAL H. BOW - (1) Receive a PAL crosshatch signal. (2) Select 11. BOW . (3) Set the initial setting value of 11. BOW . (4) Adjust 11. BOW to optimize the horizontal arc distortion. - NTSC H. BOW - (1) Receive a NTSC crosshatch signal. (2) Make similar adjustment of NTSC H. BOW in the same way as for "PAL H. BOW". (3) Press the [DISPLAY] key twice to return to the normal screen.
				

■ COMPRESS : ON (16:9)

Item	Measuring instrument	Test point	Adjustment part	Description
V. HEIGHT adjustment	Signal generator Remote control unit		[4.DEF] 14. V. ZOOM 3. V-SIZE	- PAL V. HEIGHT - (1) Receive a PAL crosshatch signal of vertical frequency 50Hz. (2) Press the [MENU] key and select PICTURE. (3) Select PICTURE FEATURES. (4) Select COMPRESS (16 : 9) and set COMPRESS to ON. (5) Select 4. DEF from the SERVICE MENU. (6) Set the initial setting value of 14. V. ZOOM. (7) Select 3. V-SIZE. (8) Set the initial setting value of 3. V-SIZE. (9) Adjust 3. V-SIZE to set the vertical amplitude of the image to 235mm. - NTSC V. HEIGHT - (1) Receive a NTSC crosshatch signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. HEIGHT in the same way as for "PAL V. HEIGHT".
				
V. SLOPE adjustment	Signal generator Remote control unit		[4.DEF] 2. V-SLOPE	- PAL V. SLOPE - (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select 4. DEF from the SERVICE MENU. (3) Select 2. V-SLOPE. (4) Set the initial setting value of 2. V-SLOPE. (5) Adjust 2. V-SLOPE to make "A = B". (6) Press the [DISPLAY] key to return to SERVICE MENU screen. - NTSC V. SLOPE - (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V-SLOPE in the same way as for "PAL V-SLOPE".
				

■ VIDEO - 2 SET: COMPONENT

Item	Measuring instrument	Test point	Adjustment part	Description
H. POSITION adjustment	Signal generator Remote control unit		[4. DEF] 4. H-CENT	(1) Receive a PAL circle pattern signal to VIDEO-2 component terminal. (2) Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. (3) Select 4. DEF from the SERVICE MENU. (4) Select 4. H-CENT . (5) Set the initial setting value of 4. H-CENT . (6) Adjust 4. H-CENT to make " C=D ". (7) Press the [DISPLAY] key twice to return to the normal screen.
				

4.7.7 VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description																																								
VSM PRESET setting	Remote control unit		[5. VSM W/B] 1. BRIGHT 2. CONT 3.COLOUR 4. SHARP 5. HUE 1. R-DRIVE 2. G-DRIVE 3. B-DRIVE	(1) Select 5. VSM W/B from the SERVICE MENU. (2) Select BRIGHT with the MENU [OK] key. (3) Set the value of 1. BRIGHT ~ 5. HUE to the values shown in the table. (4) Respectively select the VSM PRESET mode for SOFT and STANDARD. (5) Select COOL with the MENU [OK] key. (6) Set the values of 1. R-DRIVE ~ 3. B-DRIVE to the value shown in the table. (7) Select the W/B preset for WARM and NORMAL, respectively. (8) Press the [DISPLAY] key twice to return to the normal screen.																																								
SUB MENU 5. VSM W/B VSM PRESET BRIGHT 1. BRIGHT ***				[Setting Values for SUB 5. VSM W/B] <table><tr><th> VSM preset Setting item </th><th>BRIGHT</th><th>STANDARD</th><th>SOFT</th></tr><tr><td>1. BRIGHT</td><td>0</td><td>0</td><td>0</td></tr><tr><td>2. CONT</td><td>+15</td><td>+10</td><td>+5</td></tr><tr><td>3. COLOUR</td><td>0</td><td>-4</td><td>0</td></tr><tr><td>4. SHARP</td><td>0</td><td>-5</td><td>-10</td></tr><tr><td>5. HUE</td><td>0</td><td>0</td><td>0</td></tr></table> <table><tr><th> W/B preset Setting item </th><th>COOL</th><th>NORMAL</th><th>WARM</th></tr><tr><td>1. R-DRIVE</td><td>0</td><td>0</td><td>+10</td></tr><tr><td>2. G-DRIVE</td><td>0</td><td>+2</td><td>-4</td></tr><tr><td>3. B-DRIVE</td><td>0</td><td>-10</td><td>-12</td></tr></table>	VSM preset Setting item	BRIGHT	STANDARD	SOFT	1. BRIGHT	0	0	0	2. CONT	+15	+10	+5	3. COLOUR	0	-4	0	4. SHARP	0	-5	-10	5. HUE	0	0	0	W/B preset Setting item	COOL	NORMAL	WARM	1. R-DRIVE	0	0	+10	2. G-DRIVE	0	+2	-4	3. B-DRIVE	0	-10	-12
VSM preset Setting item	BRIGHT	STANDARD	SOFT																																									
1. BRIGHT	0	0	0																																									
2. CONT	+15	+10	+5																																									
3. COLOUR	0	-4	0																																									
4. SHARP	0	-5	-10																																									
5. HUE	0	0	0																																									
W/B preset Setting item	COOL	NORMAL	WARM																																									
1. R-DRIVE	0	0	+10																																									
2. G-DRIVE	0	+2	-4																																									
3. B-DRIVE	0	-10	-12																																									

SECTION 5 TROUBLESHOOTING

5.1 SELF CHECK FUNCTIONS

5.1.1 OUTLINE

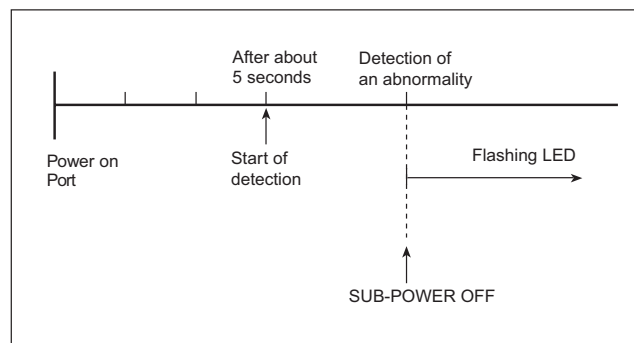
This model has self check functions given below. When an abnormality has been detected, the SUB POWER is turned off and POWER LED flashes to inform of the failure. An abnormality is detected by the signal input state of the control line connected to the microcomputer.

5.1.2 SELF CHECK ITEMS

Check item	Details of detection	Method of detection	State of abnormality
B1 over-current protection	An over-current on the low B1 line is detected.	The main microcomputer detects the possible abnormality at 24-msec. intervals and judges the results in every 16 time. Of the 16 times, if NG is detected more than 9 times, it is judged that there is an abnormality.	When an abnormality has been detected, the SUB-POWER is turned off. While the SUB-POWER is being turned off, the POWER key on the remote control unit is not operational until the power cord is disconnected and connected again.
CRT neck broken protection	Operation of CRT neck protection circuit.		

5.1.3 SELF CHECK INDICATING FUNCTION

When an abnormality has been detected at about 5 seconds after the power was turned on, the SUB POWER is turned off immediately and the POWER LED flashes.



[INDICATION BY THE POWER LED]

Item	LED flashing intervals
B1 over-current protection / CRT neck broken protection	0.3 seconds



Victor Company of Japan, Limited
AV & MULTIMEDIA COMPANY DISPLAY CATEGORY 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA284)



Printed in Japan
VPT



EQUALIZER • CINEMA SURROUND • COMPONENT INPUT

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Remote control buttons and basic functions	4
TV buttons and functions	6
Setting up your TV	7
Basic setting for picture	9
Advanced setting for picture	11
Original features for picture	12
Basic setting for sound	14
Advanced setting for sound	15
DVD function	16
Customized setting	17
TV channel presetting	19
Additional preparation	22
Troubleshooting	23
Specifications	Back cover



INSTRUCTIONS

GGT0086-001A-H

29/04/2005, 9:03 AM





for buying this JVC colour television.
your new TV, please read this manual thoroughly before you begin.

NOT
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THE
OF THIS TV.

- 7 If you are not going to use this TV for a long period of time, be sure to disconnect the AC plug from the AC socket.
- 8 The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

of the TV.
plugging the

WARNING: <AV-2155WE only>
A REMOVABLE PLASTIC COVER IS FIXED TO THE TELEVISION'S FRONT AUDIO/VIDEO CONNECTOR. TO PREVENT THIS COVER FROM BEING ACCIDENTALLY SWALLOWED BY BABIES OR CHILDREN, REMOVE IT FROM THE TELEVISION AND STORE IT IN A SAFE PLACE. IF THE COVER IS SWALLOWED SEEK THE ADVICE OF A DOCTOR IMMEDIATELY.

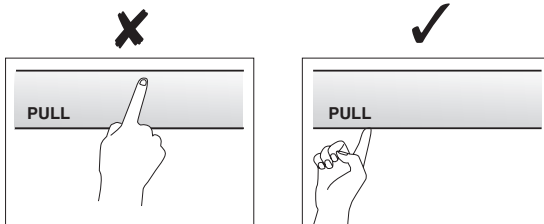
the TV of



<AV-21M, AV-25M, AV-29M Series>
YOU CAN DETACH THE PROTECT SHEET ON THE TOP AND BOTTOM OF FRONT FRAME IF YOU NEEDED. THE FRONT BUTTON DOOR OF THE TV SHOULD BE PULLED OUT FROM ITS BOTTOM. DO NOT PRESS THE UPPER PART, OR YOUR FINGER MAY BE PINCHED.

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cleaner or



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ust connect DVD player to the television. The television will detect DVD signal and display picture on the screen automatically and you can adjust pictures and sound while you are watching DVD as your desire.
ou can view two different sources (e.g. TV programme and VCR sources) at the same me.
ou can view teletext programmes which are broadcasted by some TV channels. Teletext programme is an information in text form.
ou can listen to the stereo sound or bilingual sound from TV programme broadcasting by A2 or NICAM Sound-multiplex system.
ou can register up to four favorite channels for quick recall with one press.
V detects the brightness of your room and automatically adjust the picture brightness to a suitable level for a better eye care.
V adjusts the volume automatically to the same level for all TV channels to avoid sudden change of the volume when selecting different TV channel or selecting Video Mode.



ons

this instruction manual may not be available for your TV.
v and check the functions that are equipped for your TV's model number. The
at the rear of your TV. When you press a button concerned to a function that is
t does not work and the logo "Ø" appears on the screen.

	AV-2987ME	AV-2985ME	AV-2955VE	AV-2585ME	AV-2557VE	AV-2555VE	AV-2185ME	AV-2157VE	AV-2155VE	AV-2155WE	AV-25LS25
h label)	○	○	—	○	—	—	○	—	—	—	—
	○	○	○	—	—	—	—	—	—	—	—
	○	○	○	○	○	○	○	○	○	○	—





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ton to EXIT from the menu.

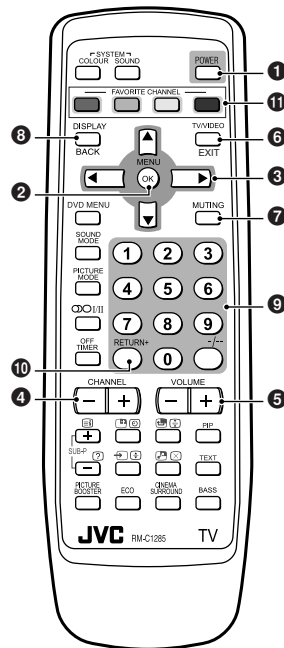
olume.
o terminal number, stereo/bilingual broadcast system

R list.
isplay the PR list.
e a channel, then press the MENU/OK button.
n the PR list. The channels set to favorite channels are

ton to return to the previous menu.
digits programme number, press -/--, then press the

l with one touch.
egister.
until "RETURN PLUS PROGRAMMED!" appears.
button until "RETURN PLUS CANCELED!" appears.
nel, if you have not set or have cancelled the Return

register then press and hold a colour button until
MMED!" appears.
peat step 1.
colour button.
u mode, the favorite channel function is not available.
rite channel function cannot register but can recall the



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continued)

Note
 Press the MENU, the DISPLAY/ button ③ or the EXIT menu DEO/EXIT button ③ to the next page functions.

Press the TV/VIDEO/ button ⑥ to the menu.

Press this manual,

	Top menu	2nd menu	Location	3rd menu	Location
MENU	PICTURE	PICTURE MODE	P.9	—	—
		PICTURE SETTING	P.10	CONTRAST	P.10
				BRIGHT	P.10
				SHARP	P.10
				COLOUR	P.10
				TINT	P.10
		WHITE BALANCE	P.10	—	—
		VNR	P.17	—	—
	SOUND	STEREO/II	P.15	—	—
		AI VOLUME	P.15	—	—
		SOUND MODE	P.14	—	—
		EQUALIZER	P.15	—	—
		BALANCE	P.14	—	—
		CINEMA SURROUND	P.15	—	—
	FEATURES	DVD MENU	P.16	AUTO SIGNAL DETECT	P.16
				DVD PICTURE MODE	P.16
				TINT COLOUR	P.16
				WHITE BALANCE	P.16
				SOUND MODE	P.16
				CINEMA SURROUND	P.16
		OFF TIMER	P.17	—	—
		CHILD LOCK	P.17	—	—
		COMPRESS (16:9)	P.11	—	—
		AI ECO SENSOR	P.11	—	—
	INSTALL	SETUP TOUR	P.18	—	—
		AUTO PROGRAM	P.19	—	—
		EDIT/MANUAL	P.19	DELETE, MOVE, MANUAL, INSERT	P.19-P.20
		COLOUR SYSTEM	P.9	—	—
		LANGUAGE	P.17	LANGUAGE	P.17
		TEXT LANGUAGE	P.13	TEXT LANGUAGE	P.13
		VIDEO-2 SETTING	P.18	—	—
		BLUE BACK	P.11	—	—
		PICTURE TILT	P.11	—	—
	EXIT	—	—	—	—



LS25 and AV-2955VE only, which are used for explanation purpose.

No.	Button/terminal	Description	Page
❶	Ⓜ (main power)	Press to turn on or turn off the TV's main power.	—
❷	POWER lamp	Indicate the TV is being turned on or off. No colour : TV's main power is being turned off. Red : TV's main power is being turned on. Note: When you turn off the power switch while TV is in standby mode, the light of power lamp will be off in 10 -15 seconds.	—
❸	ECO sensor		—
❹	Remote control sensor		—
❺	TV/VIDEO/EXIT	Press to select TV or Video terminal input or exit from menu.	—
❻	VOLUME -/+	Press to adjust the volume level.	—
❼	CHANNEL -/+	Press to select the desired channel.	—
❽	MENU	Press to display the menu.	—
❾	IN (VIDEO-3)	Video and audio input jacks for VIDEO-3 mode.	22
❿		Headphone jack.	22
⓫		Aerial socket.	7
⓬	OUTPUT	Video and audio output jacks. (The component video signal cannot be output.)	22
⓭	COMPONENT (VIDEO-2) INPUT	Video or component video, and audio input jacks for VIDEO-2 mode. You can select the input signal by setting the "VIDEO-2 SETTING" function (see page 18).	22
⓮	VIDEO-1 INPUT	Video or S-VIDEO, and audio input jacks for VIDEO-1 mode	7

How to operate the menus with the TV button

TV button	Work as same as the button on the remote control unit	Note
MENU	MENU/OK button	To display main menu and exit menu after finish setting.
CHANNEL -/+	▼/▲ button	To select menu function.
VOLUME -/+	◀/▶ button	To adjust the desired function.





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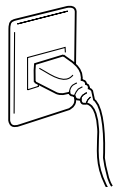
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2 Connecting the compatible main plug to the AC outlet.



3 Inserting batteries into the remote control.

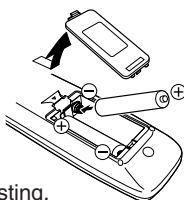
Insert two batteries by following the ⊕ and ⊖ polarities and inserting the ⊖ end first.

CAUTION:

Follow the cautions printed on the batteries.

Notes:

- Use AA/R6/UM-3 dry cell batteries.
- If the remote control does not work properly, fit new batteries. The supplied batteries are for testing, not regular use.



4 Turn on the TV by pressing the main power button.

JVC logo appears on the screen.

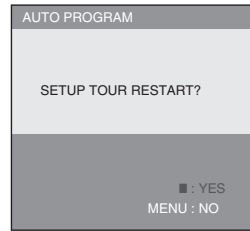
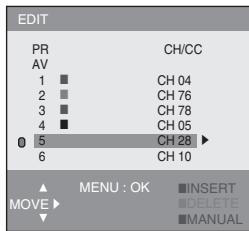
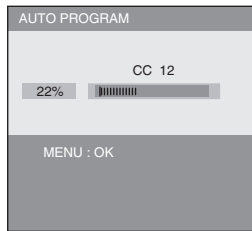


JVC logo will appear on the screen again at the phase of "SETUP TOUR RESTART?" function. Then the initial setting can be performed according to page 8.





or 15 seconds, then operate the TV by following the steps as below:



- TV will start searching for the channels.

To stop AUTO PROGRAM, press MENU/OK button.

- To complete the initial setting, press the MENU/OK button. To edit the channel list, see page 19.

- After that, when turn on the TV at the next time. "SETUP TOUR RESTART?" will be displayed. Press the MENU/OK button to cancel the SETUP TOUR RESTART function. If you want to make initial settings again when the next time you turn on the TV, press the Red button to activate the SETUP TOUR RESTART function.



GLISH/РУССКИЙ/中文/MELAYU/INDONESIA, you can select the TEXT



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PICTURE MODE

You can choose the desired picture setting with one-touch.
Press the PICTURE MODE button to select a setting.

SOFT	Softens contrast and sharpness.
BRIGHT	Heightens contrast and sharpness.
STANDARD	Standard picture setting.
USER	You can change this picture setting as you like. Select USER and adjust following items in the PICTURE SETTING menu. (CONTRAST, BRIGHT, SHARP, COLOUR, TINT*)

When you select to VIDEO-2 Mode. You cannot adjust SHARP
and TINT.

*TINT can only be adjusted in NTSC system.

To operate this function with a menu:

* (MENU) ➡ (PICTURE menu) ➡ (PICTURE MODE)

To return the USER setting to the default, press the blue button
when the PICTURE SETTING menu appears.

* About the basic operations of the menu, please see the “How
to operate menus and menus locations” on page 5.

System
PAL
PAL
PAL
SECAM
NTSC
SECAM
PAL
PAL
PAL
PAL
PAL
SECAM





WHITE BALANCE

You can change the white balance of the picture to better match the type of video being viewed.

Select the WHITE BALANCE in the PICTURE menu, then choose the desired setting.

* (MENU) → (PICTURE menu) → (WHITE BALANCE)

NORMAL	Normal white balance.
COOL	Bluish white.
WARM	Reddish white.

When you select to VIDEO-2. You cannot adjust WHITE BALANCE. You can adjust it in DVD Menu.

* About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.





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- 2 Press the ▲/▼ buttons until the picture become level. Then press the MENU/OK button.

COMPRESS (16:9)

You can convert a normal picture (4:3 aspect ratio) into a wide picture (16:9 aspect ratio).

Select the COMPRESS (16:9) in the FEATURES menu, then choose ON or OFF.

* (MENU) ➔ (FEATURES menu) ➔ (COMPRESS (16:9))

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BLUE BACK

You can set the TV to automatically change to a blue screen and mute the sound if the signal is weak or absent, or when there is no input from an antenna.

Select the BLUE BACK in the INSTALL menu, then choose ON or OFF.

* (MENU) ➔ (INSTALL menu) ➔ (BLUE BACK)

If you wish to continue viewing the poor picture, cancel the BLUE BACK function.

* About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.



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:

VIDEO-3

TV.

picture.

on, the sub

VIDEO-2

When VIDEO-2 is set to component, if the input source of main picture is set to VIDEO-2 with component, PIP button is disabled and sub picture can't be displayed.

TELETEXT

You can watch the Teletext broadcast channel with TEXT function.

1 Press the TEXT button to select the desired mode as follows:

→ TV mode → TEXT twin mode → TEXT mode

2 Press the CHANNEL +/- buttons, number buttons or colour buttons to select other Teletext pages.

3 Press TEXT or TV/VIDEO button to return to TV mode.

You can also operate the teletext using the following buttons:

 (Hold)	Hold a teletext page. The  (Hold) are displayed at the top left of the screen. To cancel, press  (Hold) button again.
 (Reveal)	Display the hidden text (e.g. answers to a quiz). To cancel, press  (Reveal) button again.
 (Size)	Enlarge the teletext display.
 (Index)	Return to the index page instantly.
 (Cancel)	Watch TV programme while waiting for a teletext page. When the teletext page is found, a page number appears at the upper left of the screen. Press  (Cancel) to view the teletext page.
 (Sub-page)	Operate the  (Sub-page) function. Sub-page numbers are displayed at the left of the screen. To cancel sub-page function, press  (Sub-page) button again.

※ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.



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D/K
D/K
B/G
I
B/G
I
B/G
B/G

SOUND MODE

You can choose the desired sound setting.
Select the SOUND MODE in SOUND menu, then choose the setting.

* (MENU) ➡ (SOUND menu) ➡ (SOUND MODE)

USER	You can change this sound setting as you like. Select USER and adjust the frequencies in EQUALIZER (100, 300, 1K, 3K, 8K Hz). For details, see "EQUALIZER" on page 15.
------	--

SOUND TURBO	Emphasize on low and high frequency levels.
THEATER	Emphasize on movie sound.
MUSIC	Emphasize on music effect.
NEWS	Emphasize on vocal sound.

When you select to VIDEO-2. You cannot adjust SOUND MODE function. You can adjust it in DVD Menu.

BALANCE

You can adjust the volume balance between the left and right speakers.

Select the BALANCE in SOUND menu, then adjust the setting.

* (MENU) ➡ (SOUND menu) ➡ (BALANCE)

* About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.



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EQUALIZER

You can adjust the sound level of each frequencies when selecting USER mode in SOUND MODE.

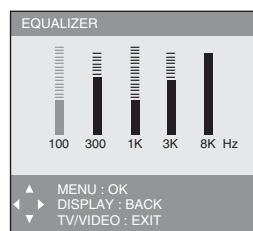
1 Select the USER in SOUND MODE under SOUND menu.

* (MENU) → (SOUND menu) → (SOUND MODE) → (USER)

2 Select the EQUALIZER in SOUND menu.

* (MENU) → (SOUND menu) → (EQUALIZER)

The following display appears.



3 Select and adjust the desired frequencies.

4 Press the MENU/OK button to exit the menu.

Adjust high frequency will affect higher pitch sound and vice versa.

AI VOLUME

You can adjust the volume of all the channels and video inputs to the same level automatically depends on the strength of signal of the sources.

Select the AI VOLUME in SOUND menu, then choose ON or OFF.

* (MENU) → (SOUND menu) → (AI VOLUME)

* About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.



WHITE BALANCE

You can change the white balance of the DVD picture.
Select the WHITE BALANCE in DVD MENU under FEATURES menu,
then choose the desired setting.

* (MENU) → (FEATURES menu) → (DVD MENU)
→ (WHITE BALANCE)

For details, see "WHITE BALANCE" on page 10.

SOUND MODE

You can choose the desired sound setting for the DVD.
Select the SOUND MODE in DVD MENU under FEATURES menu,
then choose the desired setting.

* (MENU) → (FEATURES menu) → (DVD MENU)
→ (SOUND MODE)

For details, see "SOUND MODE" on page 14.

CINEMA SURROUND

You can enjoy an enhanced sound for the DVD.
Select the CINEMA SURROUND in DVD MENU under FEATURES
menu, then choose the desired setting.

* (MENU) → (FEATURES menu) → (DVD MENU)
→ (CINEMA SURROUND)

For details, see "CINEMA SURROUND" on page 15.

This function is not available when the SOUND MODE is set to
SOUND TURBO.

** When you use VIDEO-2 to display the DVD signal or Video
signal then WHITE BALANCE, VNR function in PICTURE
menu/SHARP, TINT function in PICTURE SETTING menu/
SOUND MODE, CINEMA SURROUND function in SOUND
menu cannot operate.

* About the basic operations of the menu, please see the "How
to operate menus and menus locations" on page 5.





OFF TIMER

You can set the TV to turn off automatically to standby mode after a set time.

Press the OFF TIMER button to select a desired period of time.



You can set the period of time to a maximum of 120 minutes in 10 minutes step.

To operate this function with a menu:

* **MENU** → **FEATURES menu** → **OFF TIMER**

When the elapsed of time left one minute, "GOOD NIGHT!" appears on the screen.

You can display the OFF TIMER menu again to confirm or change the remaining time.

* About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.





DISPLAY

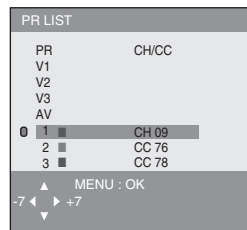
You can display the programme number, video terminal number and PR list on the screen.

Press the DISPLAY button to select the desired mode:



Choose a TV channel or a VIDEO terminal.

- 1 Press the DISPLAY button to display the PR LIST.
- 2 Select a programme number or video terminal by pressing the ▲/▼ button to move up/down on the programme number or press the ◀/▶ button to skip for each 7 programme numbers, then press MENU/OK button.



※ About the basic operations of the menu, please see the “How to operate menus and menus locations” on page 5.





ally

list

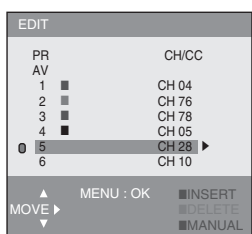
K button.
received
cally.

e channel

r the TV

st manually.

- 2 Choose EDIT/MANUAL, then press the MENU/OK button.
EDIT menu appears.



- 3 Choose the channel which you want to register.
- 4 Press the blue button to activate the MANUAL function.
The sound system of the channel appears at the right of the CH/CC number.
- 5 Press the ► button to choose an appropriate sound system.
For details, see "SOUND SYSTEM" on page 14.
- 6 Press the green or red button to search for the TV channel.
Searching stops when a channel is found and displayed.
- 7 Repeat step 5 until your desired TV channel appears.

If the reception is poor	Press the blue or yellow button to fine tune the TV channel.
If noisy sound is heard	Press the ► button to choose an appropriate sound system.
- 8 Press the MENU/OK button to exit the menu.

* About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.





To add in the new channel (INSERT in the EDIT menu)

You can add in the new channel in the TV channel list as you like. You need to find the "CH/CC" number for the TV channel. Find the "CH/CC" number corresponding to the channel number of the TV channel from the attached sheet "CH/CC number list" on page 21.

- 1 Display the INSTALL menu.
* (MENU) ➡ (INSTALL menu)
 - 2 Choose EDIT/MANUAL, then press the MENU/OK button.
EDIT menu appears.
 - 3 Choose the PR number for which you will register a new TV channel. When you add a new TV channel of NTSC-M system, press the SOUND SYSTEM button to change the sound system to M. Then proceed to the next step.
 - 4 Press the green button, then press ► buttons to choose "CC" or "CH".
 - 5 Press the number button to enter the remaining CH/CC number.
The TV starts to search the TV channel, and the picture of the TV channel appears. If the TV finds no TV channel, a noisy picture appears.
- When a TV channel has already been registered in PR99, using the INSERT function deletes that TV channel.

* About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.

To add in the new channel (INSERT in the EDIT menu)

You can add in the new channel in the TV channel list as you like. You need to find the "CH/CC" number for the TV channel. Find the "CH/CC" number corresponding to the channel number of the TV channel from the attached sheet "CH/CC number list" on page 21.

- 1 Display the INSTALL menu.
* (MENU) ➡ (INSTALL menu)
 - 2 Choose EDIT/MANUAL, then press the MENU/OK button.
EDIT menu appears.
 - 3 Choose the PR number for which you will register a new TV channel. When you add a new TV channel of NTSC-M system, press the SOUND SYSTEM button to change the sound system to M. Then proceed to the next step.
 - 4 Press the green button, then press ► buttons to choose "CC" or "CH".
 - 5 Press the number button to enter the remaining CH/CC number.
The TV starts to search the TV channel, and the picture of the TV channel appears. If the TV finds no TV channel, a noisy picture appears.
- When a TV channel has already been registered in PR99, using the INSERT function deletes that TV channel.

* About the basic operations of the menu, please see the "How to operate menus and menus locations" on page 5.





US	CCIR	OIRT	AUSTRALIA
S-33, W+48	E33		AU-34
S-34, W+49	E34		AU-35
S-35, W+50	E35		AU-36
S-36, W+51	E36		AU-37
S-37, W+52	E37		AU-38
S-38, W+53	E38		AU-39/AU-40
S-39, W+54	E39		AU-41
S-40, W+55	E40		AU-42
S-41, W+56	E41		AU-43
S-42, W+57	E42		AU-44
S-43, W+58	E43		AU-45
S-44, W+59	E44		AU-46
S-45, W+60	E45		AU-47/AU-48
S-46, W+61	E46		AU-49
S-47, W+62	E47		AU-50
S-48, W+63	E48		AU-51
S-49, W+64	E49		AU-52
S-50, W+65	E50		AU-53
S-51, W+66	E51		AU-54
S-52, W+67	E52		AU-55/AU-56
S-53, W+68	E53		AU-57
S-54, W+69	E54		AU-58
S-55, W+70	E55		AU-59
S-56, W+71	E56		AU-60
S-57, W+72	E57		AU-61
S-58, W+73	E58		AU-62
S-59, W+74	E59		AU-63/AU-64
S-60, W+75	E60		AU-65
S-61, W+76	E61		AU-66
S-62, W+77	E62		AU-67
S-63, W+78	E63		AU-68
S-64, W+79	E64		AU-69
S-65, W+80	E65		
S-66, W+81	E66		
S-67, W+82	E67		
S-68, W+83	E68		
S-69, W+84	E69		

US	CCIR	OIRT	AUSTRALIA
	S-1		AU-5
	S-2		
	S-3		
	S-4		
	S-5		
	S-6		AU-5A
	S-7		
	S-8		
	S-9		
	S-10		
	S-11		
	S-12		
	S-13		
A	S-14		
B	S-15		
C	S-16		
D	S-17		

CC	US	CCIR	OIRT	AUSTRALIA
CC 18	E	S-18		
CC 19	F	S-19		
CC 20	G	S-20		
CC 21	H	S-21		
CC 22	I	S-22		
CC 23	J	S-23		
CC 24	K	S-24		
CC 25	L	S-25		
CC 26	M	S-26		
CC 27	N	S-27		
CC 28	O	S-28		
CC 29	P	S-29		
CC 30	Q	S-30		
CC 31	R	S-31		
CC 32	S	S-32		
CC 33	T	S-33		
CC 34	U	S-34		
CC 35	V	S-35		
CC 36	W	S-36		
CC 37	W+1	S-37		
CC 38	W+2	S-38		
CC 39	W+3	S-39		
CC 40	W+4	S-40		
CC 41	W+5	S-41		
CC 42	W+6			
CC 43	W+7			
CC 44	W+8			
CC 45	W+9			
CC 46	W+10			
CC 47	W+11			
CC 48	W+12			
CC 49	W+13			
CC 50	W+14			
CC 51	W+15			
CC 52	W+16			
CC 53	W+17			
CC 54	W+18			
CC 55	W+19			
CC 56	W+20			
CC 57	W+21			
CC 58	W+22			
CC 59	W+23			
CC 60	W+24			
CC 61	W+25			
CC 62	W+26			
CC 63	W+27			
CC 64	W+28			
CC 75		X		
CC 76		Y	R3	
CC 77		Z	R4	AU-3
CC 78		Z+1	R5	
CC 79		Z+2		AU-4
CC 95	A-5			
CC 96	A-4			
CC 97	A-3			
CC 98	A-2			
CC 99	A-1			



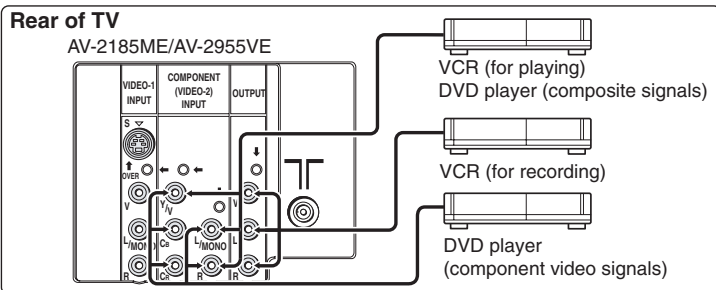
E and
se. Your

proper

al

TV game

Connecting to rear component/video input terminal and output terminal



When you use VIDEO-1 INPUT, you should choose to connect S-VIDEO or video input. If S-VIDEO connector and video input are connected at the same time, no picture displays on the screen and the message "PLEASE DISCONNECT VIDEO-1 CABLE!" appears. In this case, you should disconnect either S-VIDEO or video input.

When connecting to COMPONENT (VIDEO-2) input, depending on the connection, choose the appropriate video input using the menu (see page 18).



he below	• Colour patches appear at the corner of the screen	• This may due to the magnetized device such as a speaker near to your TV. Keep the device apart from your TV. Alternately, you can also use the magnetic-shielded speaker.
is turned on. Refer to	• Picture is tilted	• This may due to the earth magnetism. Refer to "PICTURE TILT" on page 11 to correct the tilt.
n with the TV.	• Image takes a short period to be displayed	• Image required time to stabilize before display. This is not a malfunction.
ices such as r drier. Move	• TV may emitted crackling sound	• This is due to a sudden change in temperature and it is not a malfunction. If the crackling sound is too frequent, request your service technician for inspection.
ecting from erial's enna. Refer to	• Feel a slight electric shock when touching the TV screen	• This is due to the static electricity of the picture tube and it will not harm the human body. This is not a malfunction.
Refer to	• After you connect the signal to VIDEO-2 and playback VCR or DVD Player, the Auto Detect does not work.	• Please check that the AUTO SIGNAL DETECT function is on or off. • Press button (VCR or DVD Player) to turn the machine off and turn it on again; do not turn the machine off and on suddenly. • Inspect the video cable connection on VIDEO-2 that they are connected properly.
e of the	• When you are watching another channel that is not VIDEO-2, AUTO SIGNAL DETECT works while VCR or DVD Player was on.	• Inspect the video cable connection on VIDEO-2 that they are connected properly. • In a certain VCR or DVD Player, the function might operate by the discontinuity of the signal.
signal properly. This	• While you are watching TV on the other channels, AUTO SIGNAL DETECT works when you press ◀◀, ■, ▶, ▶▶ or on the front panel of VCR or DVD Player.	• In a certain VCR or DVD Player, the function might operate by the discontinuity of the signal.
fer to	• After TV was on, AUTO SIGNAL DETECT works.	• Video signal from VCR or DVD Player cause the function runs properly to indicate that there are video signal on VIDEO-2 channel.





z

UHF channel (U)
and hyper band.

AV-2185ME, AV-2155WE, AV-2157VE)
AV-2585ME, AV-2557VE, AV-2955VE, AV-2985ME, AV-2987ME, AV-25LS25)

AV-25LS25), VIDEO input, AUDIO L/R input
L/R input, COMPONENT VIDEO (Y/C_B/C_R) input
L/R input
D L/R output
mm diameter)



LANGUAGE" on page 13.

ut notice.

JVC

0305-FLE-JMT



29/04/2005, 9:04 AM



JVC

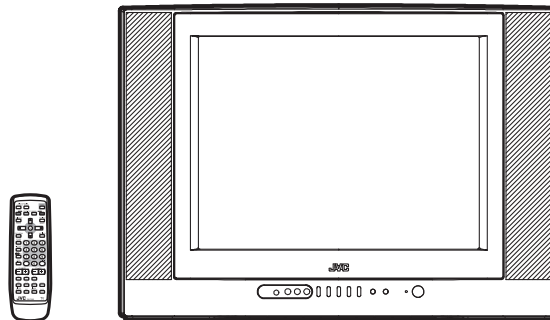
SCHEMATIC DIAGRAMS

FLAT COLOUR TELEVISION

AV-2155WE/KSK

CD-ROM No.SML200508

BASIC CHASSIS
CW2



STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the $\triangle$ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal : Colour bar signal
- (2)Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3)Internal resistance of tester : DC 20k Ω /V
- (4)Oscilloscope sweeping time : H $\Rightarrow$ 20 μ s / div
: V $\Rightarrow$ 5ms / div
: Others $\Rightarrow$ Sweeping time is specified
- (5)Voltage values : All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R209 $\rightarrow$ R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

- No unit : [Ω]
- K : [k Ω]
- M : [M Ω]

● Rated allowable power

- No indication : 1/16 [W]
- Others : As specified

● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflamable resistor
- FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

- 1 or higher : [pF]
- less than 1 : [μ F]

● Withstand voltage

- No indication : DC50[V]
- Others : DC withstand voltage [V]
- AC indicated : AC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

●Type

- No indication : Ceramic capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

(3)Coils

- No unit : [μ H]
- Others : As specified

(4)Power Supply

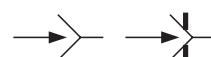
-  : B1
-  : B2 (12V)
-  : 9V
-  : 5V

* Respective voltage values are indicated

(5)Test point

-  : Test point
-  : Only test point display

(6)Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7)Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ($\perp$) side GND and the ISOLATED(NEUTRAL) : (⏏) side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

NOTE

◆ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

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PATTERN DIAGRAMS

MAIN PWB PATTERN

VOLTAGE CHARTS

WAVEFORMS

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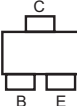
2-9

2-11

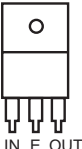
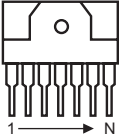
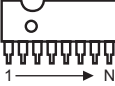
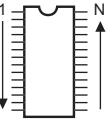
2-12

SEMICONDUCTOR SHAPES

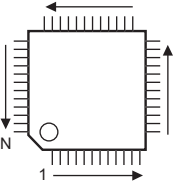
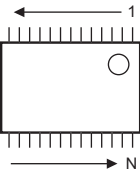
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

USING P.W.BOARD

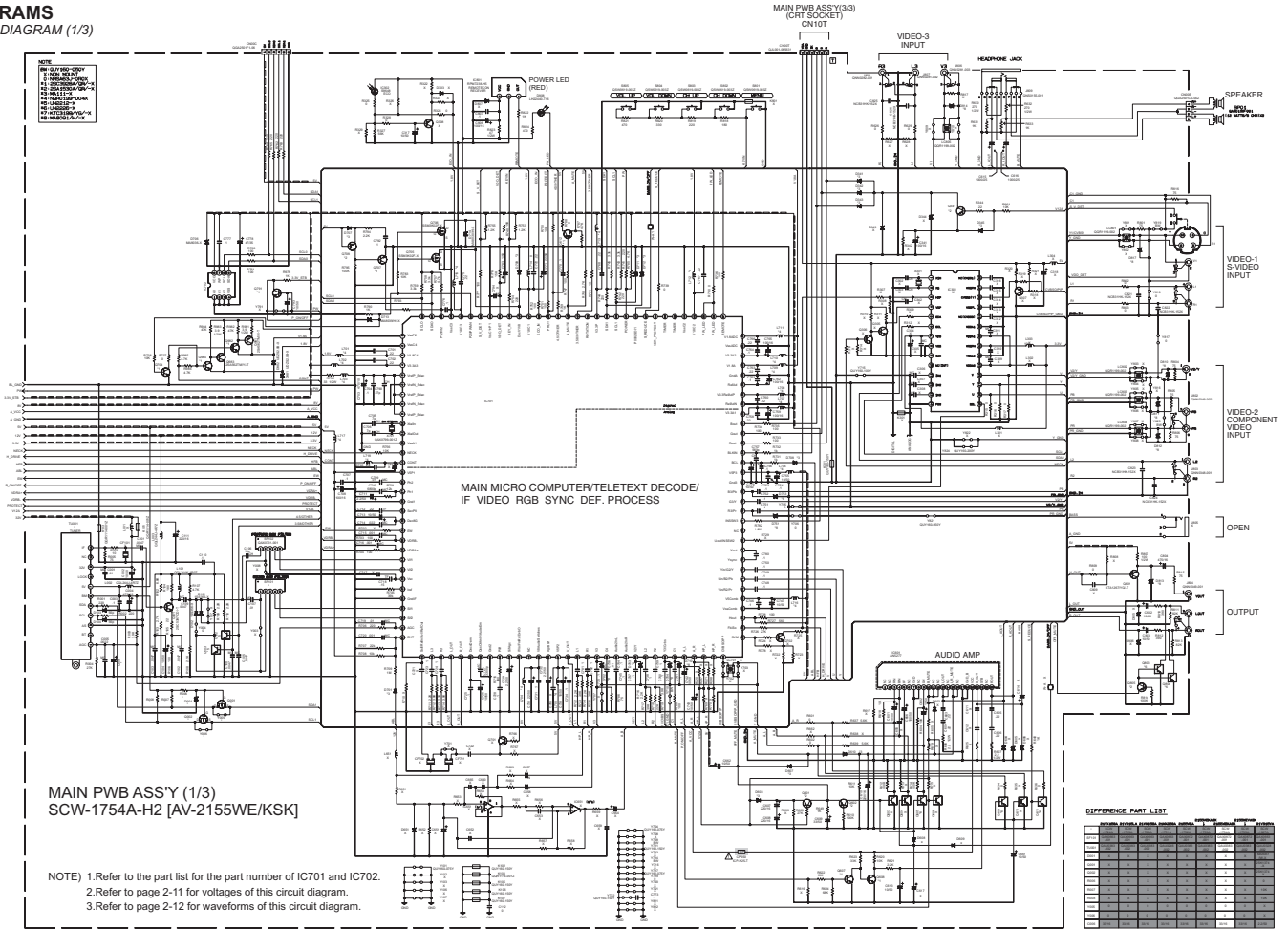
P.W. BOARD ASS'Y NAME	AV-2155WE/KSK
MAIN P.W. BOARD	SCW-1754A-H2

The diagram illustrates the internal circuitry of a VCR, centered around the IC701 main microcomputer. Key components and connections include:

- Inputs:** S-VIDEO, VIDEO-2 COMPONENT, VIDEO-3 INPUT (FRONT), and AC IN.
- Processing:** The IC701 microcomputer manages the system, interfacing with IC702 main memory and various control and processing blocks like the SIF filter, VIF filter, and video/audio processors.
- Outputs:** Video output (V, L, R) and audio output (A, L, R) are provided, along with a remote control receiver and a power switch.
- Power and Deflection:** The system includes a power supply section with regulators (IC901, IC902, IC903) and a deflection yoke (DY01) for the CRT.

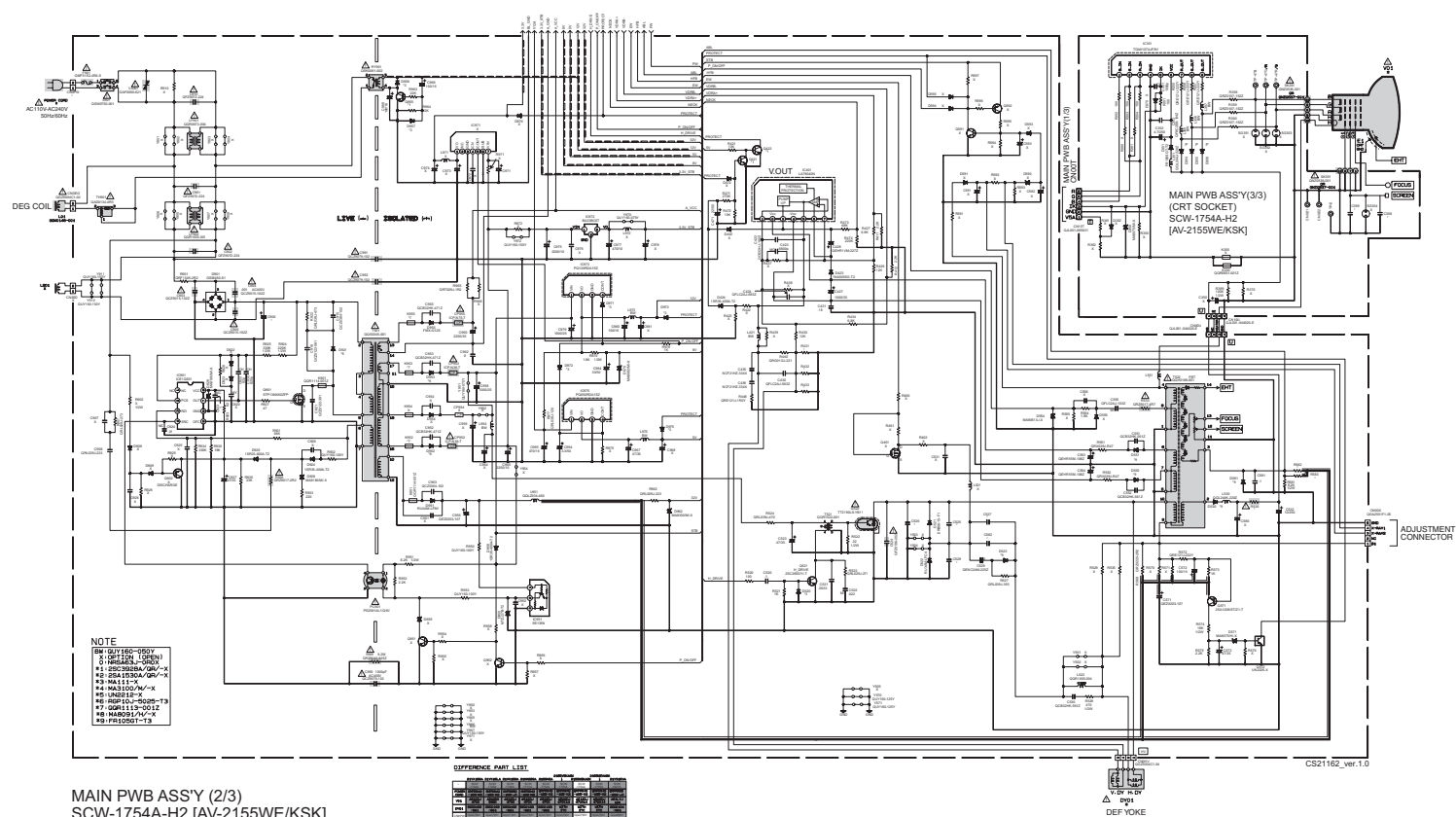
2-4(No.YA284)

CIRCUIT DIAGRAMS
MAIN PWB CIRCUIT DIAGRAM (1/3)



CS21162_ver.1.0

MAIN PWB CIRCUIT DIAGRAM (2/3), (3/3)



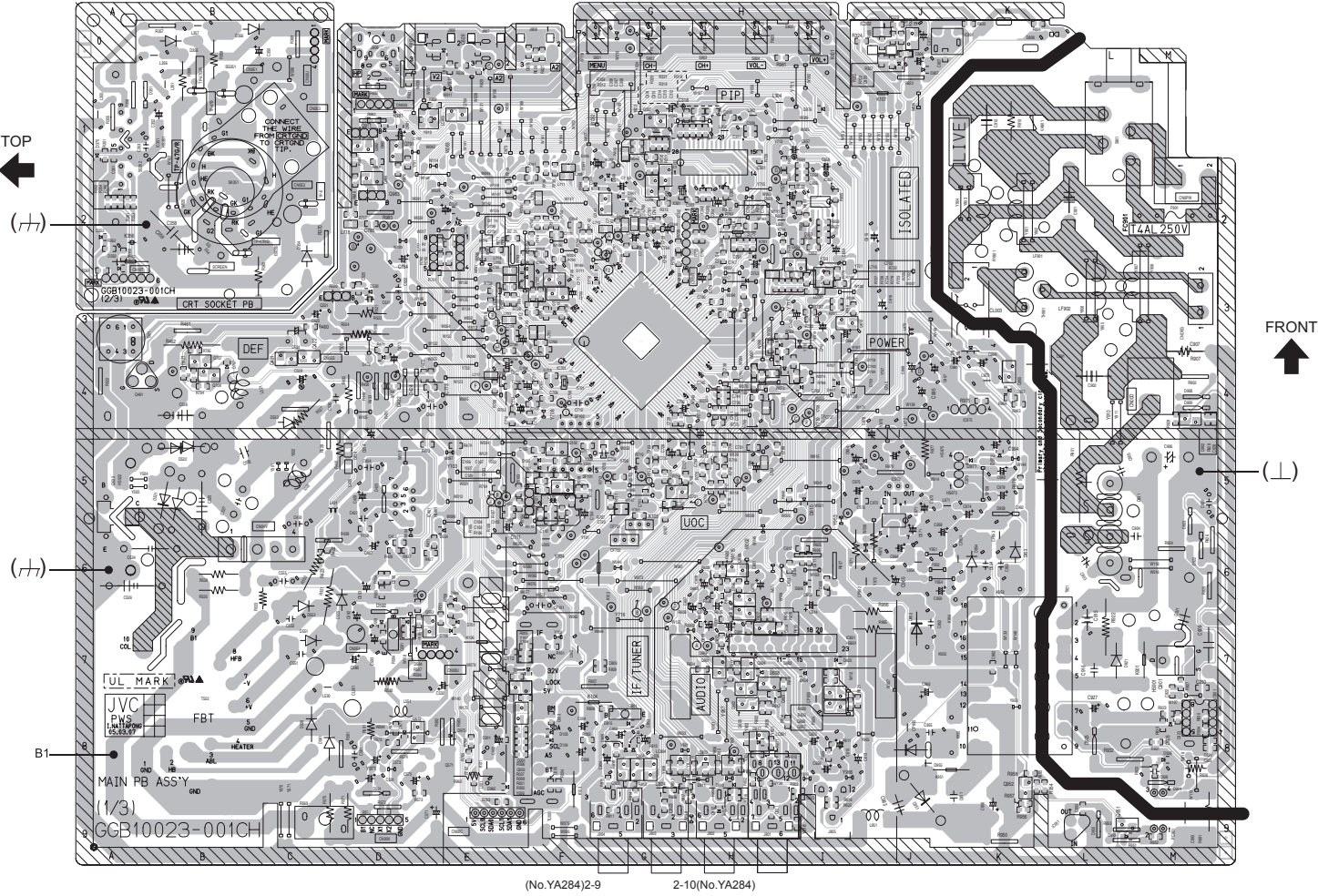
NOTE) 1.Refer to page 2-11 for voltages of this circuit diagram.
2.Refer to page 2-12 for waveforms of this circuit diagram.

[illegible]

(No.YA284)2-7

2-8(No.YA284)

PATTERN DIAGRAMS
MAIN PWB PATTERN



VOLTAGE CHARTS

<MAIN PWB>

MODE PIN NO.	DC (V)
IC401	
1	0.6
2	13.3
3	-11.4
4	-13.3
5	0.2
6	13.5
7	0.5
IC601	
1	0.4
2	0
3	29.2
4	0
5	0
6	0.4
7	14.6
8	0.7
9	0
10	30.6
11	17.9
12	14.6
IC701	
1	0
2	0
3	1.8
4	3.1
5	3.1
6	0
7	3.1
8	0
9	3.1
10	0.5
11	1.3
12	0
13	0
14	2.5
15	4.9
16	1.9
17	2.3
18	0.2
19	2.3
20	2.3
21	0
22	0.8
23	0.9
24	1.9
25	1.8
26	2.4
27	1.7
28	0
29	1.9
30	1.9
31	1.5
32	3.4
33	1.8
34	2.2
35	2.2
36	3.6
37	3.7
38	2.3
39	2.4
40	0
41	1.9
42	1.6
43	2.2
44	3.0
45	8.4
46	2.1
47	4.9
48	1.4
49	2.2
50	2.1
51	1.3
52	1.5
53	2.2
54	2.1
55	1.4
56	2.2
57	2.2
58	1.4
59	1.6
60	3.6
61	3.6
62	3.5
63	3.5
64	0.5
65	0
66	0.3
67	1.5
68	0
69	5.0
70	1.2
71	1.3
72	1.3
73	1.9
74	1.7
75	0.5

MODE PIN NO.	DC (V)
76	0
77	3.2
78	1.2
79	1.2
80	1.3
81	0
82	4.9
83	2.3
84	3.5
85	2.1
86	2.1
87	2.2
88	3.2
89	0
90	3.2
91	1.6
92	0
93	1.8
94	3.2
95	0
96	1.8
97	2.9
98	0
99	0
100	1.8
101	0
102	2.9
103	0
104	0
105	0
106	0
107	0
108	1.7
109	1.7
110	3.2
111	0
112	3.2
113	0
114	3.2
115	3.1
116	0
117	1.8
118	1.8
119	3.2
120	0
121	0
122	3.2
123	0
124	1.8
125	0
126	3.2
127	3.2
128	3.2
IC702	
1	0
2	0
3	0
4	0
5	3.2
6	3.2
7	0
8	3.2
IC801	
1	2.9
2	0
3	3.2
IC901	
1	0.4
2	1.8
3	1.6
4	3.8
5	0
6	0.2
7	1.6
8	18.4
IC951	
1	134.2
2	11.5
3	0
IC972	
1	6.9
2	0
3	3.2
IC973	
1	15.0
2	11.9
3	0
4	2.5
IC975	
1	8.1
2	5.0
3	0
4	2.5
Q101	
E	2.2
C	11.9
B	2.9

MODE PIN NO.	DC (V)
Q102	
E	0
C	0
B	3.1
Q103	
E	0
C	0
B	3.1
Q341	
E	7.9
C	1.8
B	8.0
Q521	
E	0
C	10.6
B	0
Q522	
E	0
C	150.0
B	-0.1
Q571	
E	134.1
C	0
B	133.9
Q572	
E	0.1
C	2.8
B	0
Q601	
E	8.1
C	0.3
B	8.0
Q602	
E	0
C	-2.8
B	0
Q603	
E	-1.7
C	0
B	0
Q605	
E	-1.7
C	0
B	0
Q607	
E	0
C	0
B	0.6
Q608	
E	0
C	20.3
B	0
Q612	
E	0.2
C	5.0
B	0
Q704	
E	0
C	2.5
B	0
Q705	
S	0
G	0
D	1.8
Q706	
S	0
G	0
D	1.8
Q707	
E	0.1
C	3.2
B	0.1
Q708	
E	4.8
C	0
B	4.9
Q791	
E	0
C	2.9
B	0
Q801	
E	2.0
C	0
B	1.3
Q803	
E	0
C	0
B	-1.1
Q804	
E	0
C	0
B	-1.1
Q805	
E	0.2
C	-1.1
B	0

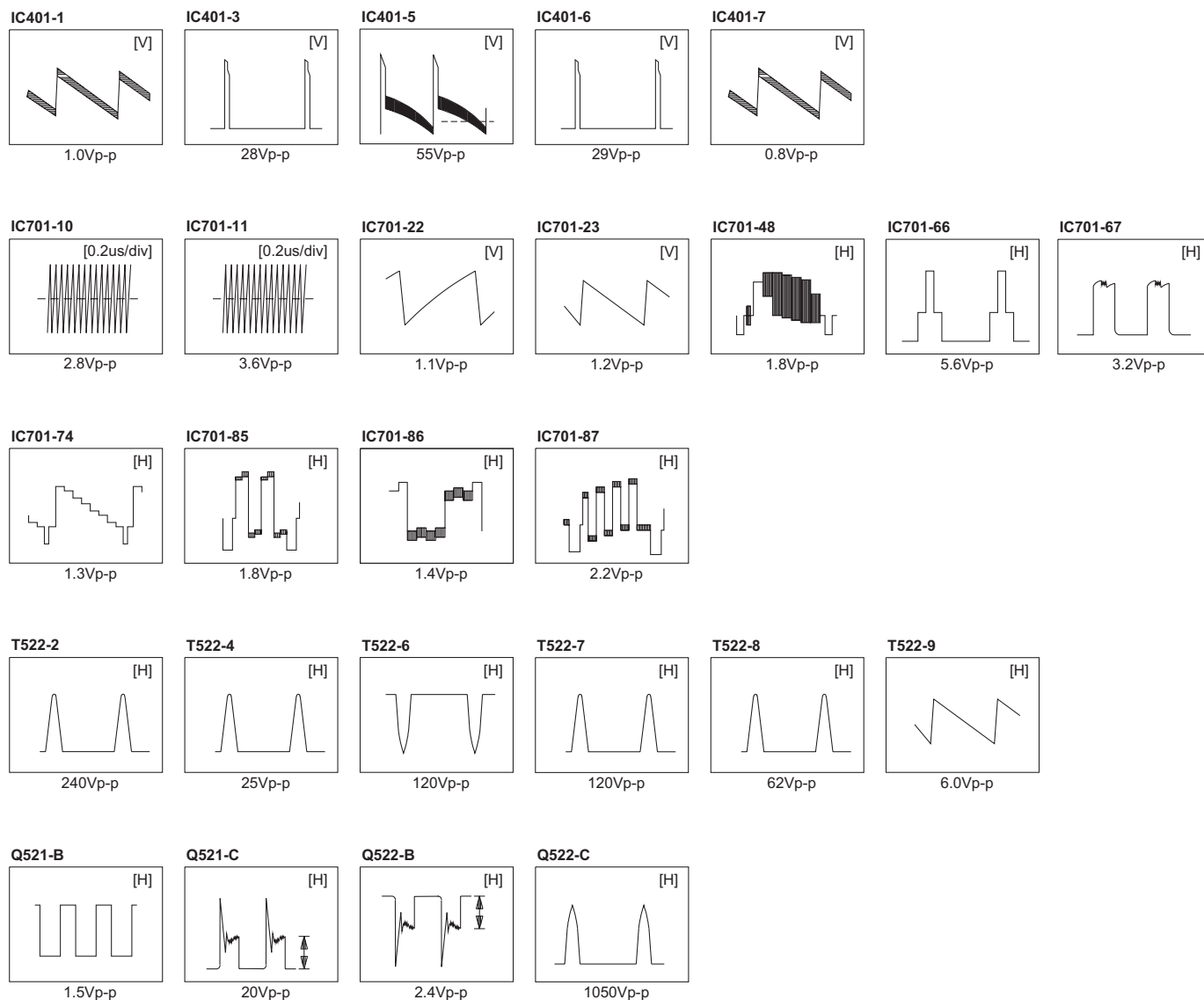
MODE PIN NO.	DC (V)
Q901	
S	0
D	294.3
G	1.6
Q955	
E	0
C	11.9
B	0
Q981	
E	2.7
C	1.9
B	2.0
Q982	
E	1.8
C	2.0
B	2.4
Q983	
E	2.8
C	1.9
B	2.0
Q984	
E	1.9
C	2.1
B	2.3
TU001	
1	1.7
2	2.4
3	0
4	1.8
5	1.7
6	4.8
7	4.9
8	0.2
9	34.3
11	0

<MAIN PWB
(CRT SOCKET)>

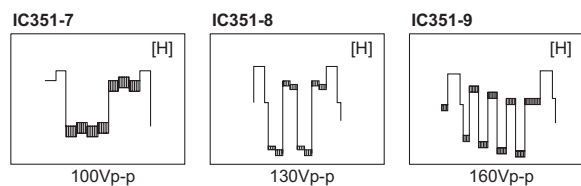
MODE PIN NO.	DC (V)
IC351	
1	2.2
2	2.2
3	2.1
4	0
5	4.8
6	191.9
7	114.8
8	113.1
9	109.7

WAVEFORMS

-MAIN PWB-



-CRT SOCKET PWB-





Victor Company of Japan, Limited
AV & MULTIMEDIA COMPANY DISPLAY CATEGORY 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA284)



Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the Δ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
CR	Carbon Resistor	C CAP.	Ceramic Capacitor
FR	Fusible Resistor	E CAP.	Electrolytic Capacitor
PR	Plate Resistor	M CAP.	Mylar Capacitor
VR	Variable Resistor	CH CAP.	Chip Capacitor
HV R	High Voltage Resistor	HV CAP.	High Voltage Capacitor
MF R	Metal Film Resistor	MF CAP.	Metalized Film Capacitor
MG R	Metal Glazed Resistor	MM CAP.	Metalized Mylar Capacitor
MP R	Metal Plate Resistor	MP CAP.	Metalized Polystyrol Capacitor
OM R	Metal Oxide Film Resistor	PP CAP.	Polypropylene Capacitor
CMF R	Coating Metal Film Resistor	PS CAP.	Polystyrol Capacitor
UNF R	Non-Flammable Resistor	TF CAP.	Thin Film Capacitor
CH V R	Chip Variable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH MG R	Chip Metal Glazed Resistor	TAN. CAP.	Tantalum Capacitor
COMP. R	Composition Resistor	CH C CAP.	Chip Ceramic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
		CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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PACKING 3-10

PACKING PARTS LIST 3-10

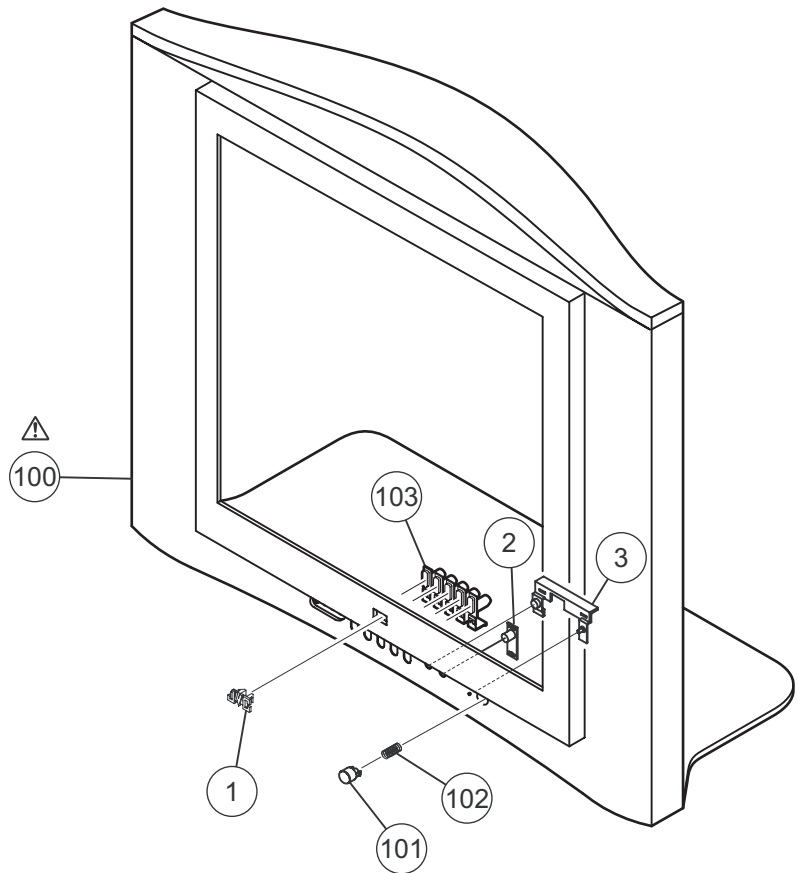
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y	AV-2155WE/KSK
MAIN P.W.B	SCW-1754A-H2
REMOTE CONTROL UNIT	RM-C1286-1H

EXPLODED VIEW PARTS LIST -1

△ Ref.No.	Part No.	Part Name	Description	Local
1	GG40023-001A-H	JVC MARK		
2	GG30044-001B-H	REMOCON LENS		
3	GG30042-001B-H	LED LENS		
△ 100	GG10198-026A-HK	FRONT CABINET ASS'Y	Inc.101,102,103	
101	GG30043-001B-H	POWER KNOB		
102	CM35235-003-H	SPRING		
103	GG20022-001B-H	CONTROL KNOB		

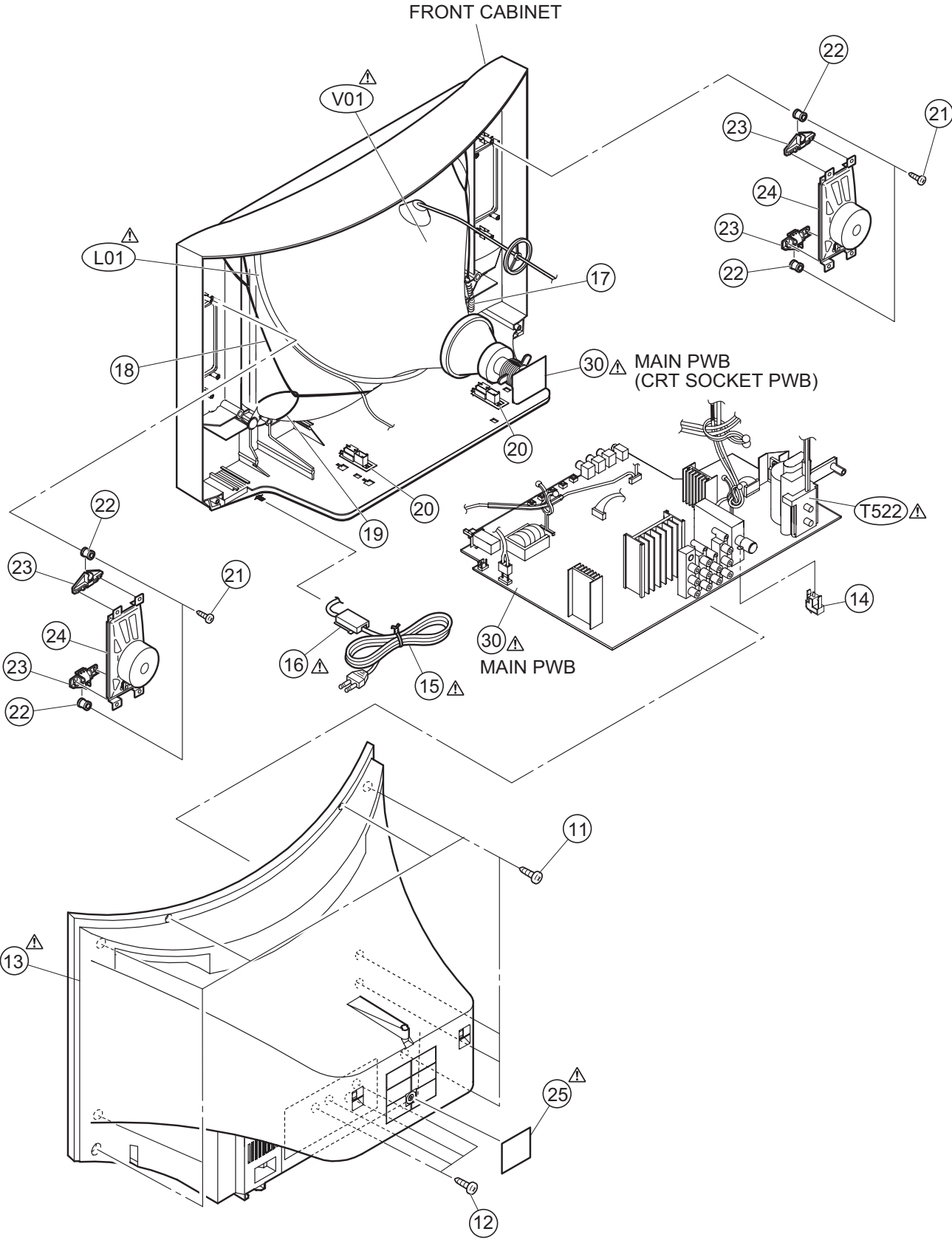
EXPLODED VIEW -1



EXPLODED VIEW PARTS LIST -2

△	Ref.No.	Part No.	Part Name	Description	Local
△	V01	A51QDJ470X14	PICTURE TUBE(ITC)	Inc.DEF YOKE, PC MAGNET	
△	L01	QQW0146-001	DEG COIL		
△	T522	QQH0188-001	FB TRANSF		
	11	QYSBSFG4016ZA	TAP SCREW	M4 x 16mm(x9)	
	12	QYSBSF3010ZA	TAP SCREW	M3 x 10mm(x4)	
△	13	GG10187-218A-HK	REAR COVER		
	14	CM48144-004-H	PB STOPPER		
△	15	CM47005-A01-H	POWER CORD CLAMP		
△	16	QMPR340-165-K2	POWER CORD	1.65m BLACK	
	17	A48457-3-H	SPRING		
	18	WJY0029-001A-E	BRAIDED ASS'Y		
	19	WJY0013-003A-E	BRAIDED ASS'Y		
	20	CM36623-003-H	CHASSIS RAIL	(x2)	
	21	GG40046-001A-H	TAP SCREW	(x4)	
	22	LC40226-005A-H	SPACER	(x4)	
	23	GG20057-002A-H	SPEAKER HOLDER	(x4)	
	24	QAS0139-001	SPEAKER	(x2) SP01,SP02	
△	25	GG20024-001B-H	RATING LABEL		
△	30	SCW-1754A-H2	MAIN PWB		

EXPLODED VIEW -2



PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (SCW-1754A-H2)

△Ref No.	Part No.	Part Name	Description Local
IC302	S9648	PHOTO CONDUCTOR	
IC351	TDA6107AJF/N1	IC	
IC401	LA78040N	IC	
IC601	AN5277	IC	
IC701	TDA12021-ERCM1	IC(MCU)	(SERVICE)
IC702	AT24C16-21MS25	IC	(SERVICE)
IC801	RPM7238-H5	IR DETECT UNIT	
IC901	ICE1QS01	IC	
IC951	SE135N	IC	
IC972	BA33BC0T	REGULATOR IC	
IC973	PQ120RDA1SZ	IC	
IC975	PQ050RDA1SZ	IC	
Q101	2SC5397/CD/-T	TRANSISTOR	
Q102	UN2212-X	DIGI TRANSISTOR	
Q103	UN2212-X	DIGI TRANSISTOR	
Q341	2SA1530A/QR/-X	TRANSISTOR	
Q421	2SC3928A/QR/-X	TRANSISTOR	
Q422	2SC3928A/QR/-X	TRANSISTOR	
Q521	2SC2655/Y/-T	TRANSISTOR	
△Q522	TT2190LS-YB11	TRANSISTOR	
Q571	2SA1208/ST/Z1-T	TRANSISTOR	
Q572	UN2226-X	DIGI TRANSISTOR	
Q601	2SA1530A/QR/-X	TRANSISTOR	
Q602	2SA1530A/QR/-X	TRANSISTOR	
Q603	UN2226-X	DIGI TRANSISTOR	
Q605	UN2226-X	DIGI TRANSISTOR	
Q607	2SC3928A/QR/-X	TRANSISTOR	
Q608	2SC3928A/QR/-X	TRANSISTOR	
Q609	UN2226-X	DIGI TRANSISTOR	
Q611	UN2226-X	DIGI TRANSISTOR	
Q612	2SC3928A/QR/-X	TRANSISTOR	
Q704	2SC3928A/QR/-X	TRANSISTOR	
Q705	SSM3K02F-X	MOS FET	
Q706	SSM3K02F-X	MOS FET	
Q707	2SC3928A/QR/-X	TRANSISTOR	
Q708	2SA1530A/QR/-X	TRANSISTOR	
Q791	2SC3928A/QR/-X	TRANSISTOR	
Q801	KTA1267/YG/-T	TRANSISTOR	
Q803	UN2226-X	DIGI TRANSISTOR	
Q804	UN2226-X	DIGI TRANSISTOR	
Q805	2SA1530A/QR/-X	TRANSISTOR	
Q901	STP13NK60ZFP	POWER MOS FET	
Q955	2SC3928A/QR/-X	TRANSISTOR	
Q981	2SA562TM/Y/-T	TRANSISTOR	
Q982	2SC3928A/QR/-X	TRANSISTOR	
Q983	2SA562TM/Y/-T	TRANSISTOR	
Q984	2SC3928A/QR/-X	TRANSISTOR	
D101	1SS356-X	SI DIODE	
D102	1SS356-X	SI DIODE	
D103	NDC21HJ-560X	C CAPACITOR	56pF 50V J
D104	NDC21HJ-560X	C CAPACITOR	56pF 50V J
D341	MA111-X	SI DIODE	
D342	MA111-X	SI DIODE	
D343	MA111-X	SI DIODE	
D345	MA111-X	SI DIODE	
D350	MA8075/M/-X	Z DIODE	
D351	FR105SGT-T2	SI DIODE	
D354	FR105GT-T3	SI DIODE	
D355	FR105GT-T3	SI DIODE	
D356	FR105GT-T3	SI DIODE	
D423	1N4003SG-T2	SI DIODE	
D424	1SR35-400A-T2	SI DIODE	
D520	MA111-X	SI DIODE	
D521	ERB06-15E-F1	SI DIODE	
D522	RU3AM-LFC4	SI DIODE	
D523	FR105GT-T3	SI DIODE	
D530	FR105GT-T3	SI DIODE	
D551	FR105GT-T3	SI DIODE	
D552	FR105GT-T3	SI DIODE	
D554	MA8051/L/-X	Z DIODE	
D571	MA8075/H/-X	Z DIODE	
D581	FR105GT-T3	SI DIODE	
D603	MA111-X	SI DIODE	
D607	MA111-X	SI DIODE	
D610	MA111-X	SI DIODE	
D701	MA111-X	SI DIODE	
D702	MA8091/H/-X	Z DIODE	
D703	MA8091/H/-X	Z DIODE	
D704	MA8091/H/-X	Z DIODE	
D706	MA8036-X	Z DIODE	

△Ref No.	Part No.	Part Name	Description Local
D707	MA111-X	SI DIODE	
D708	MA111-X	SI DIODE	
D709	MA111-X	SI DIODE	
D710	MA8091/H/-X	Z DIODE	
D711	MA111-X	SI DIODE	
D712	MA111-X	SI DIODE	
D713	MA8039/H/-X	Z DIODE	
D714	MA8030/H/-X	Z DIODE	
D751	MA8091/H/-X	Z DIODE	
D753	MA8091/H/-X	Z DIODE	
D808	LH22440-T16	LED	POWER(RED)
D810	MA8091/H/-X	Z DIODE	
D811	MA8091/H/-X	Z DIODE	
D812	MA8091/H/-X	Z DIODE	
D813	MA8091/H/-X	Z DIODE	
D814	MA8091/H/-X	Z DIODE	
D817	MA8091/H/-X	Z DIODE	
D901	GSIB460-S1	BRIDGE DIODE	
D921	FR105GT-T3	SI DIODE	
D924	1SR35-400A-T2	SI DIODE	
D925	1SR35-400A-T2	SI DIODE	
D926	MA8180/M/-X	Z DIODE	
D928	MA8180/M/-X	Z DIODE	
D950	MTZJ27B-T2	Z DIODE	
D951	RU4AM-LFT2	SI DIODE	
D952	FR105GT-T3	SI DIODE	
D953	FR105GT-T3	SI DIODE	
D955	FMX-G12S	SI DIODE	
D956	MA111-X	SI DIODE	
D957	MA111-X	SI DIODE	
D958	1SR35-400A-T2	SI DIODE	
D962	MA8330/M/-X	Z DIODE	
D970	MA8082/M/-X	Z DIODE	
D971	MA111-X	SI DIODE	
D972	MA111-X	SI DIODE	
D973	MA111-X	SI DIODE	
D975	MA111-X	SI DIODE	
D981	UDZS2.0B-X	Z DIODE	
D982	UDZS2.0B-X	Z DIODE	
C001	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C002	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C003	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C004	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C005	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C006	QETN1CM-336Z	E CAPACITOR	33uF 16V M
C101	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C102	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C103	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C104	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C105	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C106	NDC31HJ-180X	C CAPACITOR	18pF 50V J
C107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C108	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C109	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C110	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C111	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C112	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C317	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C341	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C351	NDC31HJ-102X	C CAPACITOR	1000pF 50V J
C352	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M
C353	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K
C358	QCZ0364-222	C CAPACITOR	2200pF 2kV K
C422	QCS32HJ-180Z	C CAPACITOR	18pF 500V J
C423	NCB31HK-682X	C CAPACITOR	6800pF 50V K
C424	QFLC2AJ-683Z	M CAPACITOR	0.068uF 100V J
C427	QETM1VM-108	E CAPACITOR	1000uF 35V M
C428	QEHR1VM-227Z	E CAPACITOR	220uF 35V M
C430	QFLC2AJ-563Z	M CAPACITOR	0.056uF 100V J
C431	QFVF1HJ-184Z	MF CAPACITOR	0.18uF 50V J
C435	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C436	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C471	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C520	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C521	QCB31HK-332Z	C CAPACITOR	3300pF 50V K
C522	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J
C523	QETN1VM-476Z	E CAPACITOR	47uF 35V M
△C524	QFZ0196-202	MPP CAPACITOR	2000pF 1.5kV H
C525	QFZ0196-472	MPP CAPACITOR	4700pF 1.5kV H
C526	QFZ0196-202	MPP CAPACITOR	2000pF 1.5kV H
C527	QFZ0197-124	MPP CAPACITOR	0.12uF 250V J
C528	QFP32GJ-393	PP CAPACITOR	0.039uF 400V J
C529	QENC2AM-225Z	BP E CAPACITOR	2.2uF 100V M

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C530	QCB32HK-561Z	C CAPACITOR	560pF 500V K	C763	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C532	QETN2EM-106Z	E CAPACITOR	10uF 250V M	C764	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C551	QCB32HK-561Z	C CAPACITOR	560pF 500V K	C765	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C552	QCB32HK-561Z	C CAPACITOR	560pF 500V K	C766	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C553	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M	C767	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C554	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M	C768	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C555	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J	C770	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C571	QE20203-107	E CAPACITOR	100uF 160V M	C771	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C572	QETN1CM-107Z	E CAPACITOR	100uF 16V M	C772	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C573	QETN1EM-476Z	E CAPACITOR	47uF 25V M	C773	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C581	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J	C775	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C582	QF20197-124	MPP CAPACITOR	0.12uF 250V J	C776	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C601	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C777	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C602	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C778	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C603	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	C779	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C604	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	C780	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C605	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	C781	NCB31CK-105X	C CAPACITOR	1uF 16V K
C606	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	C782	NCB31CK-105X	C CAPACITOR	1uF 16V K
C607	QETN1CM-227Z	E CAPACITOR	220uF 16V M	C783	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C608	QETN1CM-227Z	E CAPACITOR	220uF 16V M	C785	NCB30JK-225X	C CAPACITOR	2.2uF 6.3V K
C609	QETN1HM-336Z	E CAPACITOR	33uF 50V M	C790	NDC31HJ-270X	C CAPACITOR	27pF 50V J
C610	QETN1CM-227Z	E CAPACITOR	220uF 16V M	C792	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C613	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C793	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C615	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	C802	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C616	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	C803	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C656	QETN1HM-107Z	E CAPACITOR	100uF 50V M	C804	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C661	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C806	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C662	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C807	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C701	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	C821	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C702	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	C822	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C703	QETN1CM-477Z	E CAPACITOR	470uF 16V M	C823	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C704	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C824	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C705	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J	C825	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C706	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J	C826	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C707	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	△C901	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
C708	QETN1CM-107Z	E CAPACITOR	100uF 16V M	△C902	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
C709	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	△C903	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
C710	NCB31HK-682X	C CAPACITOR	6800pF 50V K	△C904	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
C711	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	△C905	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
C712	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	C906	QE20633-227	E CAPACITOR	220uF 450V M
C713	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C908	QRL029J-223	OMF RESISTOR	22kΩ 2W J
C714	NCB31HK-223X	C CAPACITOR	0.022uF 50V K	△C910	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
C715	NCB31HK-102X	C CAPACITOR	1000pF 50V K	C915	QCZ0364-152	C CAPACITOR	1500pF 2kV K
C716	NCB31HK-102X	C CAPACITOR	1000pF 50V K	C916	QCZ0122-561	C CAPACITOR	560pF 2kV K
C718	QFVF1HJ-154Z	MF CAPACITOR	0.15uF 50V J	C921	QCZ0122-391	C CAPACITOR	390pF 2kV K
C719	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	C922	NDC31HJ-820X	C CAPACITOR	82pF 50V J
C720	NCB31HK-102X	C CAPACITOR	1000pF 50V K	C923	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C723	NCB31CK-105X	C CAPACITOR	1uF 16V K	C924	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C724	NCB31CK-105X	C CAPACITOR	1uF 16V K	C927	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C725	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C930	NDC31HJ-821X	C CAPACITOR	820pF 50V J
C726	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C952	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C727	NCB31HK-332X	C CAPACITOR	3300pF 50V K	C953	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C728	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C955	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C729	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	C956	QE20203-107	E CAPACITOR	100uF 160V M
C730	QETN1HM-226Z	E CAPACITOR	22uF 50V M	C958	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M
C731	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C960	QETN1VM-228	E CAPACITOR	2200uF 35V M
C732	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	C962	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C733	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C963	QCZ0364-102	C CAPACITOR	1000pF 2kV K
C734	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C965	QEHR1AM-228Z	E CAPACITOR	2200uF 10V M
C735	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C966	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C736	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	C967	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C737	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C969	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C738	NCB31CK-105X	C CAPACITOR	1uF 16V K	C975	QEHR1AM-228Z	E CAPACITOR	2200uF 10V M
C739	NCB31CK-105X	C CAPACITOR	1uF 16V K	C977	QEHR1AM-477Z	E CAPACITOR	470uF 10V M
C740	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C979	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M
C741	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C980	QEHR1CM-107Z	E CAPACITOR	100uF 16V M
C742	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C984	QETN1HM-336Z	E CAPACITOR	33uF 50V M
C743	QETN1HM-106Z	E CAPACITOR	10uF 50V M	△C991	QCZ9079-102	C CAPACITOR	1000pF AC250V M
C744	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	△C992	QCZ9079-102	C CAPACITOR	1000pF AC250V M
C745	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	△C993	QCZ9079-102	C CAPACITOR	1000pF AC250V M
C746	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	C994	QEHR1HM-335Z	E CAPACITOR	3.3uF 50V M
C747	QETN1HM-106Z	E CAPACITOR	10uF 50V M	C995	QEHR1CM-477Z	E CAPACITOR	470uF 16V M
C748	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R001	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C749	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R002	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C750	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R003	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
C751	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R004	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
C752	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R005	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
C753	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R101	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
C754	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R102	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
C755	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R103	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
C756	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R104	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
C757	NDC31HJ-561X	C CAPACITOR	560pF 50V J	R105	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
C758	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	R106	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C759	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R107	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C760	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	R108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C761	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R109	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C762	QETN1CM-107Z	E CAPACITOR	100uF 16V M				

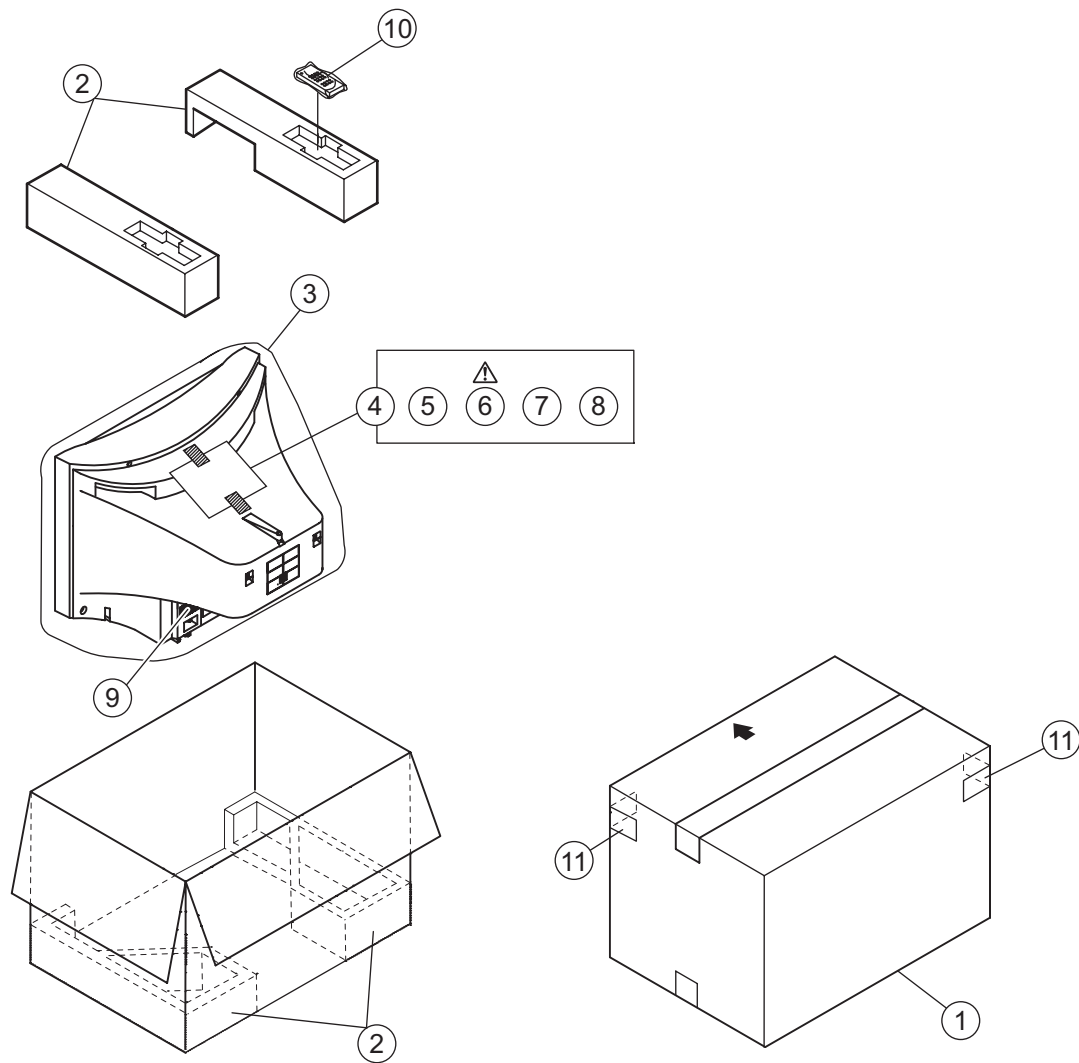
△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R110	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	R704	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R315	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R705	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
R316	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R706	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R317	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R707	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R324	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R708	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R325	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R709	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
R327	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	R711	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R328	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R712	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R344	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	R713	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R351	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R714	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R352	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	R715	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R353	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	R716	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R354	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	R717	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R355	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	R718	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R356	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	R719	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R357	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	R726	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R358	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	R727	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R359	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	R728	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R360	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	R730	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R369	QRE121J-104Y	C RESISTOR	100kΩ 1/2W J	R731	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R411	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	R732	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R412	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	R733	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R421	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R734	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R422	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R735	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R426	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	R736	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R427	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	R737	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R430	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	R738	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R431	QRE121J-271Y	C RESISTOR	270Ω 1/2W J	R739	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R432	QRX01GJ-2R2	MF RESISTOR	2.2Ω 1W J	R740	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R433	QRE121J-330Y	C RESISTOR	33Ω 1/2W J	R741	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R434	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	R742	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R440	QRG01GJ-221	OMF RESISTOR	220Ω 1W J	R743	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R448	QRE121J-1R0Y	C RESISTOR	1Ω 1/2W J	R744	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R471	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J	R745	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R472	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R747	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R473	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	R748	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R474	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	R749	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R520	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R750	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R521	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R751	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R522	QRE121J-220Y	C RESISTOR	22Ω 1/2W J	R752	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R523	QRL029J-271	OMF RESISTOR	270Ω 2W J	R753	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R524	QRL039J-470	OMF RESISTOR	47Ω 3W J	R754	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R527	QRL039J-393	OMF RESISTOR	39kΩ 3W J	R755	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R528	QRE121J-471Y	C RESISTOR	470Ω 1/2W J	R756	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
△R530	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J	R757	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
△R533	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J	R758	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R551	QRX029J-R47	MF RESISTOR	0.47Ω 2W J	R759	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R552	QRX029J-R47	MF RESISTOR	0.47Ω 2W J	R760	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R554	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	R761	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R569	QRZ0225-2R2	UNF RESISTOR	2.2Ω 7W K	R762	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R572	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	R763	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R573	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R764	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R574	QRE121J-183Y	C RESISTOR	18kΩ 1/2W J	R765	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R575	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	R768	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R581	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J	R771	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R582	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J	R772	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R583	QRE121J-184Y	C RESISTOR	180kΩ 1/2W J	R773	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R601	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R774	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R602	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R775	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R604	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R776	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R606	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J	R777	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R607	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J	R782	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R609	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	R783	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R610	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	R785	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R611	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R786	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R612	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	R787	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R614	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	R788	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R618	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R790	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R620	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R792	QRE121J-330Y	C RESISTOR	33Ω 1/2W J
R621	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	R793	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R622	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R794	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R623	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	R795	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R624	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	R801	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R626	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R802	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R629	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R803	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R630	QRE121J-271Y	C RESISTOR	270Ω 1/2W J	R804	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R631	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R805	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R632	QRE121J-271Y	C RESISTOR	270Ω 1/2W J	R806	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R633	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R807	QRE121J-101Y	C RESISTOR	100Ω 1/2W J
R634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R809	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R636	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	R810	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R637	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	R811	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R639	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	R812	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R640	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R813	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R649	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R814	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R701	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	R815	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R816	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R818	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	K901	QQR1114-001Z	FERRITE BEADS	
R819	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	K951	QQR1114-001Z	FERRITE BEADS	
R820	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	K952	QQR1113-001Z	FERRITE BEADS	
R821	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	K953	QQR1113-001Z	FERRITE BEADS	
R822	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	K955	QQR1113-001Z	FERRITE BEADS	
R823	QRE121J-470Y	C RESISTOR	47Ω 1/2W J	LC801	QQR1199-001	EMI FILTER	
R824	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	LC802	QQR1199-001	EMI FILTER	
R901	QRF154K-2R2	UNF WW RESISTOR	2.2Ω 15W K	LC803	QQR1199-001	EMI FILTER	
R907	QRL029J-273	OMF RESISTOR	27kΩ 2W J	LC804	QQR1199-001	EMI FILTER	
R922	QRL039J-473	OMF RESISTOR	47kΩ 3W J	LC805	QQR1199-001	EMI FILTER	
R923	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	△LF901	QQR0673-004	LINE FILTER	
R924	QRE121J-224Y	C RESISTOR	220Ω 1/2W J	△LF902	QQR1635-001	LINE FILTER	
R925	QRE121J-334Y	C RESISTOR	330kΩ 1/2W J	△RY901	QSK0061-002	RELAY	
R927	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	S801	QSW0619-003Z	TACT SWITCH	MENU
R930	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	S802	QSW0619-003Z	TACT SWITCH	CH-
R931	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	S803	QSW0619-003Z	TACT SWITCH	CH+
R933	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	S804	QSW0619-003Z	TACT SWITCH	VOL-
R934	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	S805	QSW0619-003Z	TACT SWITCH	VOL+
R935	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	△S901	QSW0750-001	PUSH SWITCH	POWER
△R936	QRZ9017-2R2	FUSI RESISTOR	2.2Ω 1/4W J	SF101	QAX0872-001	SAW FILTER	
R951	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J	SF102	QAX0731-001	SAW FILTER	
R952	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	△SK351	QNZ0536-001	CRT SOCKET	
R961	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	△TH901	QAD0134-4R5	P THERMISTOR	4.5Ω
R962	QRL029J-223	OMF RESISTOR	22kΩ 2W J	TU001	QAU0246-002	TUNER	
R963	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	△VA901	QAF0060-621	VARISTOR	620V
R964	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	X701	QAX0799-001Z	CRYSTAL	
R965	QRT029J-1R2	MF RESISTOR	1.2Ω 2W J		LC30114-001C-H	LED HOLDER	
R970	QRE121J-182Y	C RESISTOR	1.8kΩ 1/2W J		GG30138-001A-H	EE HOLDER	
R976	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R977	QRL039J-120	OMF RESISTOR	12Ω 3W J				
R978	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R981	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J				
R982	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J				
R983	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J				
R984	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J				
R985	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J				
R986	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J				
△R991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K				
L002	QQL244J-4R7Z	PEAKING COIL	4.7uH J				
L003	QQL244J-4R7Z	PEAKING COIL	4.7uH J				
L101	QQL244K-1R0Z	PEAKING COIL	1uH K				
L351	QQL244J-220Z	COIL	22uH J				
L522	QQR1005-004	LINEARITY COIL					
L530	QQL244K-220Z	PEAKING COIL	22uH K				
L551	QQLZ026-240	COIL	24uH ±7%				
L701	NQR0199-004X	FERRITE BEADS					
L702	NQR0199-004X	FERRITE BEADS					
L703	NQR0199-004X	FERRITE BEADS					
L704	NQR0199-004X	FERRITE BEADS					
L705	NQR0199-004X	FERRITE BEADS					
L706	NQR0199-004X	FERRITE BEADS					
L707	NQR0199-004X	FERRITE BEADS					
L708	NQR0199-004X	FERRITE BEADS					
L709	NQR0199-004X	FERRITE BEADS					
L710	NQR0199-004X	FERRITE BEADS					
L711	NQR0199-004X	FERRITE BEADS					
L712	NQR0199-004X	FERRITE BEADS					
L713	NQR0199-004X	FERRITE BEADS					
L714	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J				
L715	NQR0199-004X	FERRITE BEADS					
L716	NQR0199-004X	FERRITE BEADS					
L717	NQR0199-004X	FERRITE BEADS					
L718	NQR0199-004X	FERRITE BEADS					
L951	QQLZ026-460	COIL	46uH ±7%				
T521	QQR1522-001	DRIVE TRANSF					
△T921	QQS0345-001	SW TRANSF					
△PC901	PS2581AL1/QW/	PHOTO COUPLER					
△CP650	ICP-N25-T	IC PROTECTOR	1.0A				
△CP952	ICP-N38-T	IC PROTECTOR	1.5A				
△CP953	ICP-N38-T	IC PROTECTOR	1.5A				
△CP955	ICP-N75-T	IC PROTECTOR	2.7A				
△F901	QMF51E2-4R0-S	FUSE	4A AC250V				
J801	QNZ0454-002	PIN JACK	VIDEO-1 IN				
J802	QNN0349-002	PIN JACK	VIDEO-2 COMP IN				
J803	QNN0348-001	PIN JACK	VIDEO-2 L/R IN				
J804	QNN0349-001	PIN JACK	OUTPUT				
J806	QNN0281-003	PIN JACK	VIDEO-3 V IN				
J807	QNN0281-002	PIN JACK	VIDEO-3 L IN				
J808	QNN0282-001	PIN JACK	VIDEO-3 R IN				
J809	QNS0155-001	3.5 JACK	HEADPHONE				
K101	QQR1114-001Z	FERRITE BEADS					
K103	QQR1114-001Z	FERRITE BEADS					
K104	QQR1114-001Z	FERRITE BEADS					
K356	QQR0601-001Z	COIL					

REMOTE CONTROL UNIT PARTS LIST (RM-C1286-1H)

 Ref No.	Part No.	Part Name	Description	Local
	R25-8566	BATTERY COVER		

PACKING



PACKING PARTS LIST

 Ref.No.	Part No.	Part Name	Description	Local
1	GG10044-088B-H	PACKING CASE	4pcs in 1set	
2	GG10188-005A	CUSHION ASS'Y		
3	GG30097-003A-H	POLY BAG		
4	GG30096-001A-H	POLY BAG	AA/R6 (x2)	
5	-----	BATTERY		
 6	GGT0086-001A-H	INST BOOK	BT-54023-1H	
7	GG30046-001B-H	TERMINAL CAP		
8	BT-54023-1H	WARRANTY CARD	RM-C1286-1H	
9	GG40042-001A-H	CORD CLAMP R/C		
10	RM-C1286-1H	REMOCON UNIT	(x2)	
11	GG20025-005A-H	CORNER LABEL		